TCA

The Canadian Amateur

Canada's Amateur Radio Magazine

La Revue des Radioamateurs Canadiens

MARCH / APRIL 2013 – MARS / AVRIL 2013

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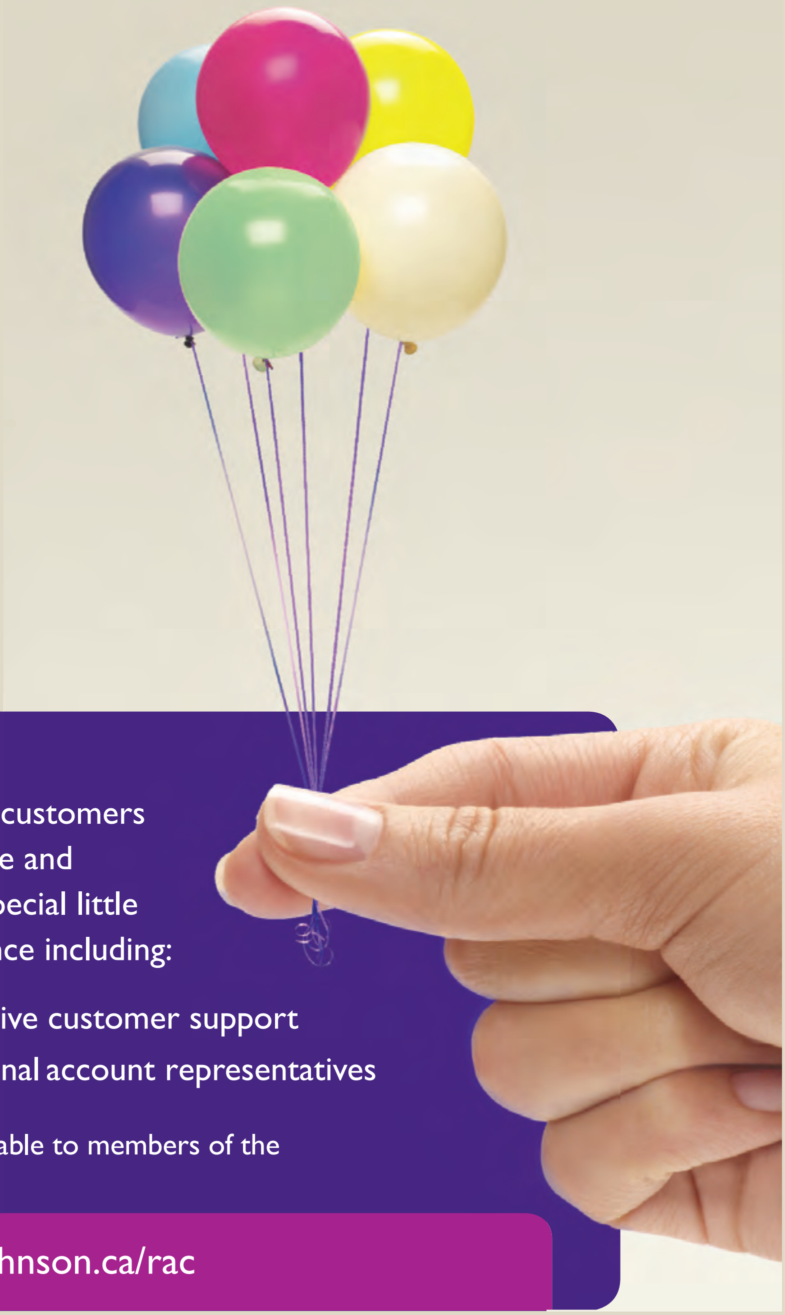
The Rally of The Tall Pines

RAC CANADA DAY
CONTEST 2012
RESULTS



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MARCH & APRIL 2013

TCA
The Canadian Amateur

MARS & AVRIL 2013

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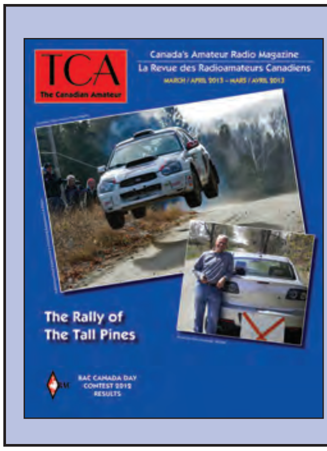
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RAC CANADA DAY CONTEST 2012 RESULTS

OUR COVER: "THE RALLY OF THE TALL PINES"

"This year's edition of 'The Pines', one of six closed stage rallies on the Canadian Rally Championship circuit, attracted nearly 60 competitors from all across North America. But the back story is the number of volunteer workers, some 200 in all, who helped make the event a success. Amongst those volunteers were no fewer than 78 Amateur Radio operators who provided critical communications links among rally officials." – see page 28

"As with last year, we were fortunate enough to have Canada Day fall as part of a weekend. This generally adds to the level of activity for the contest and despite it happening in the middle of the long weekend we saw overall participation up 20% this year." – see page 46

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(*Note: Method B is preferred).

Silent Keys – In Memoriam

With regret, we record the passing of these Amateur Radio operators:

TCA regrette de vous annoncer le décès des radioamateurs dont les noms suivent :

VA3MHH – Murray Hopps, of Sharon, ON, at age 85, on December 8, 2012
VA3TMK – Brian Brooks (VE0TMK), of Simcoe, ON, at age 66, on December 28, 2012.
VA7CTW – Michael Graham (VE1CTW*), of Richmond, BC, at age 71, on May 1, 2012.
VE1AMZ – Clive Bagley, of Tantallon, NS, on January 29, 2013.
VE1BGV – Margaret Morgan, of Fredericton, NB, at age 84, on January 15, 2013.
VE1CYR – Doug MacKenzie, of Sydney, NS, in December 2012.
VE1WEH – Willie Hamilton, of Upper Onslow, NS, at age 58, on January 18, 2013.
VE1YY – Bill Drew, of Upper Branch, NS, at age 72, on January 15, 2013.
VE1ZB – Sonny Greene, of North Sydney, NS, at age 86, on December 9, 2012.
VE3ABO – Brydon Skitch, of St. Catharines, ON, at age 69, on December 22, 2012.
VE3APM – Lee Hensrud (VE3RUD), of Kenora, ON, at age 63, on January 26, 2013.
VE3BOE – Stephen Harrison, of St Catharines, ON, at age 97, on December 17, 2012.
VE3CUF – Eddy Lemay, of Hawkesbury, ON, at age 91, on January 17, 2013.
VE3DLS – Emil Adamyk, of Greely, ON, at age 79, on August 12, 2012.
VE3DTJ – Barry Jones, of Toronto, ON, at age 70, on January 11, 2013.
VE3EGQ – Warren Doan, of St. Thomas, ON, at age 77, on December 2, 2012.
VE3FMR* – John Radburn, of Ottawa, ON, at age 82, on December 5, 2012.
VE3FXG – Bill Roy, of Ottawa, ON, at age 94, on January 11, 2013.
VE3GVH – Bert Collins, of Sudbury, ON, at age 80, on December 1, 2012.
VE3HAH – Barc Nutter, of Toronto, ON, on December 31, 2012.
VE3JIC – Jim Croll, of Oakville, ON, at age 94, on January 24, 2013.
VE3SCH – Konrad Schmoll, of Hamilton, ON, age 73, on January 17, 2013.
VE3TC – Len Cutress, of Fenwick, ON, at age 75, on December 13, 2012.
VE3TIJ – VA3TIJ David Faul, of Ajax, ON, on December 9, 2012.
VE3VRO – Frederick Robert Giles, of Mississauga, ON, at age 89, on December 28, 2012.
VE4MN – Mert Nelson, of Pilot Mound, MB, at age 84, on January 20, 2013.
VE4WD – Bill Deberson, of Winnipeg, MB, at age 90, on January 11, 2013.
VE6GH – Grant Clarke, of Calgary, AB, at age 81, on April 19, 2012.
VE6JS – Thomas (Ed) Doepel, of Red Deer, AB, at age 72, on August 1, 2012.
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VE7BHN – Colin Hempsall, of West Vancouver, BC, at age 93, on December 29, 2012.
VE7BON – John Dunning, of Kamloops, BC, at age 99, on January 27, 2013.
VE7DVL – Len Murdock, of Courtenay, BC, at age 60, on December 25, 2012.
VE7JDC – VE7JDX Jim Steene, of Creston, BC, at age 62, on October 9, 2012.
VE7KH – Eric Goodman, of Osoyoos, BC, at age 87, on December 5, 2012.
VE7KJP – Ken Proctor, of Blind Bay, BC, at age 77, on December 6, 2012.
VE7RB – Roger Briggs, of Coquitlam, BC, at age 74, on January 6, 2013.
VE9PAU – Bobbie Paulin, of Tracadie-Sheila, NB, at age 63, on December 7, 2012.

VY2JBM – Jim Moores, of Souris, PEI, at age 67, on January 18, 2013.

Correction: VE7WU – Allan Gray Robson, of Victoria, BC, at age 70, on July 8, 2012.

*Note: In the above list an * indicates a previous call sign or that a call sign has been reissued.*

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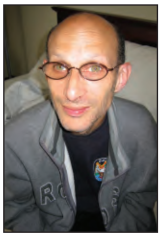

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(Sarnia)
Jerry Beneteau, VE3EXT
(Essex & Kent)
Doug Campbell, VA3DC
(Simcoe)
Doug Frame, VE3JDF
(Niagara)
Stan Leschinsky, VE3TW
(Greater Toronto Area)
Gordon Moogk, VE3DBP
(Grey-Bruce)

For RAC Membership Inquiries and Change of Address please contact RAC HQ at <rachq@rac.ca>.

FEEDBACK READERS WRITE TO THE CANADIAN AMATEUR

TCA SUBMISSIONS AND EDITING POLICY

The Canadian Amateur welcomes articles, reviews, letters, features and photographs. Submissions should be of interest to Radio Amateurs.

As a general guide TCA accepts material in the following categories: Technical Articles; Technical Notes; Non-Technical articles; News Items; and Letters. Material may be submitted electronically, as a word processing file attachment to an email message, or sent by regular mail.

All submissions to *The Canadian Amateur* – including letters and articles – are eligible to be included in *TCA*, space permitting, at the discretion of the Editor.

Please limit letters to a few hundred words or less. Longer letters are subject to editing. Letter writers should include their name, address, call sign and phone numbers (voice and fax as applicable) and email/ packet addresses (if any).

All material in *TCA* is subject to editing for length, clarity, style, punctuation, grammar, libel and taste.

All submissions that are approved for publication in TCA will appear in both the print version and electronic (Web) versions of TCA.

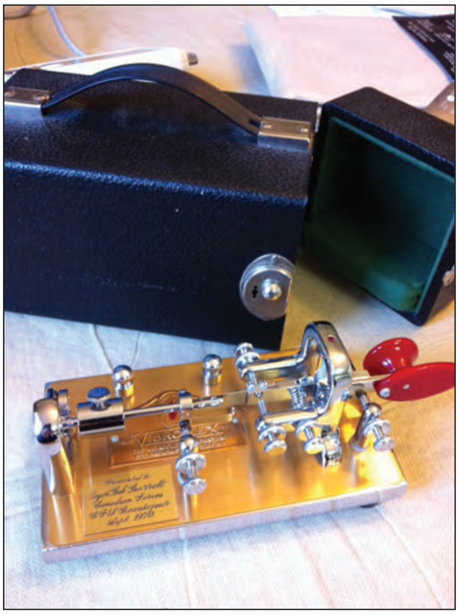
We regret that all submissions cannot be acknowledged. Please enclose a self-addressed stamped envelope if you wish pictures or diskettes returned.

For a complete Author's Guide visit <www.rac.ca/tca/authors_guide.htm>.

Please address correspondence to:
The Editor
720 Belfast Road, Suite 217
Ottawa, ON K1G 0Z5
TCA email address:
<tcamag@yahoo.ca>

Deadlines for TCA
May-June 2013
March 15
July-August
May 15

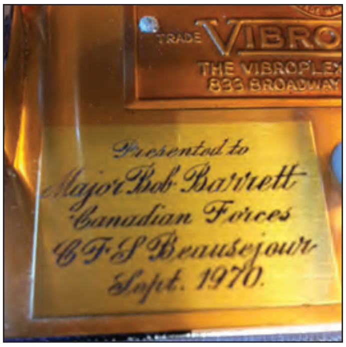
VIBROPLEX KEY TELLS A TALE OF CANADIAN MILITARY RADIO HISTORY AND MY OWN...



Recently, at a Hamilton, Ontario hamfest by luck a Vibroplex gold top Morse key bug was offered for sale and the condition of the key was remarkable; it was like new out of the box, untouched and there was not even dust on it.

The serial number indicated it was made in 1970. It was expensive to buy in its time and I *had* to have it.

More sensational for me was the presentation plaque attached to it was a professional engraving job and written for all to see was the following:



Presented to Major Bob Barrett
Canadian Forces
CFB Beausejour
Sept 1970

When I saw this plaque a flood of memories of my own ham radio history filled my thoughts. CFB Beausejour is located aproximately 46 miles away from Winnipeg, Manitoba and it was a military communications and radar base founded and used during the Cold War era; a Google search indicates it was closed down in the early eighties.

1970 was a pivotal year for me as a 16 year old student at Garden City Collegiate in the north end of Winipeg, Manitoba. I was lucky that a ham radio station club was instituted at the Collegiate some years before with the call VE4GY and as soon as I was enrolled there I was instantly attracted to ham radio via a contact made by a club member at that time VE4EW. As soon as i heard his sending Morse Code out on the radio and a woman XYL in SSB replying to him on old Heathkit ham radio equipment, I was hooked – this was for me.

I got my call sign VE4ZS in 1970 and it was the best thing I ever did. I made many friends and contacts through the club. Barry, VE4MA, was there Dave Johnson, VE4EW, was there and many more.

I consider my ham radio activity through the 1970s the best time of my young life.

Recently, a 50-year class reunion at Garden City Collegiate was held.

I attended and to my amazement my old school principal stood up and gave a speech. I was caught by surprise when he mentioned one of his most important and lasting contributions that he made as a school principal was when he started the ham radio club way back in the 1960s.

Although my educational training went in a different direction, through ham radio and the resulting knowledge of electronics I got from hamming I eventually gained employment in the electronics field and moved to Toronto and opened up a military electronic surplus store in Toronto where I am today.

I'm not sure who Major Bob Barrett was, nor can I find any history or mention of him, but for him to receive this beautiful Vibroplex indicates he was a ham radio operator and was held in high esteem. How the long 42-year journey of this 1970s Vibroplex key wound up in my hands I'll never know, but it is now in my hamshack and every CW QSO that I make from now on will be made with it – a constant reminder of my ham history.

Sid Lipkowitz, VE3ZSX
Toronto, Ontario

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AROUND THE CORNER...

People, Places, News and Events on the Canadian Amateur Radio Scene

The following news items have been compiled from Industry Canada, RAC bulletins and the RAC website at <www.rac.ca>. To subscribe to RAC bulletins visit <http://rac.eton.ca/racbullemail.htm>. Thanks to RAC Bulletin Editor – Vernon Ikeda, VE2MBS/VE2QQ. Traduction par Serge Langlois, VE2AWR.

NOTICE: LIFE MEMBERS – PAPER TCA FEE

At the RAC Annual General Meeting which was held on September 22, 2012 in Montreal, Quebec, RAC President Geoff Bawden, VE4BAW, announced a new standard membership fee structure that would offer a reduced full regular membership fee of $48 plus taxes, providing an electronic TCA. Those members wishing to continue to receive a paper TCA would pay an extra $8 for a total of $56 plus taxes. The electronic TCA would also be the standard format extended for *free* to RAC Life Members.

Owing to increased mailing costs, all mailed (print version) copies of TCA will now be provided to Life Members for the same $8 fee and will be to Canadian addresses only.

Over the past two years RAC has made sound fiscal management decisions, such as the above, which has been instrumental in placing your national organization in a positive equity position for the first time in several years.

Life Members should please contact the RAC Office at 613-244-4367 or 877-273-8304 from 10 am to 4 pm EST/EDT, Monday through Friday (except statutory holidays) to make arrangements to pay $8 (CDN) to continue to receive your paper TCA in Canada.

AVIS : MEMBRES À VIE – COÛT DE LA REVUE TCA

À l'Assemblée annuelle générale du 22 septembre 2012 à Montréal, Québec, le président Geoff Bawden, VE4BAW, a annoncé qu'une nouvelle structure des prix entrera en vigueur par laquelle tous les membres réguliers se verront offrir un membership complet pour 48 $ plus taxes, donnant droit à un abonnement à la version électronique de TCA. Les membres qui voudront continuer de recevoir la copie papier de TCA devront payer un supplément de 8 $, pour un total de 56 $, taxes en sus. La version électronique de TCA fera dorénavant partie du membership des membres à vie.

Devant l'augmentation des coûts postaux, les copies imprimées de TCA pourront être postées aux membres à vie, mais au coût de 8 $ et au Canada seulement.

RAC a pris plusieurs décisions de cette nature depuis deux ans dans le but d'assainir les finances de notre organisation nationale. Après plusieurs années, nous sommes enfin parvenus à un bilan positif.

Nous prions les membres à vie de communiquer avec le bureau de RAC, au numéro de téléphone suivant 613-244-4367 ou 877-273-8304, de 10h00 à 16h00 (HNE), du lundi au vendredi sauf les jours fériés, pour conclure une entente à propos du montant de 8 $ à payer pour continuer de recevoir la copie papier de TCA au Canada.

Radio Amateurs du Canada inc., 720 Belfast Road, local 217, Ottawa, ON K1G 0Z5
Téléphone. : 613-244-4367 ou 1-877-273-8304

Traduction par Claude Lalande, VE2LCF

RAC SECTION MANAGER ELECTION RESULTS

Congratulations to Craig Seaboyer, VE1DSS, who was recently elected Section Manager for the Maritimes for the balance of a two-year term that commenced on March 1, 2012. He ran unopposed eliminating the need for a balloted election. Congratulations Craig.

Doug Mercer, VO1DTM/VO1DM CEC – Chief Field Services Officer

RÉSULTATS D'ÉLECTION POUR GÉRANT DE SECTION DE RAC

Félicitations à Craig Seaboyer VE1DSS qui a été récemment élu en tant que gérant de section pour les Maritimes pour le reste d'un terme de deux ans ayant débuté le 1er mars 2012. Il s'est présenté sans opposition, éliminant le besoin d'une élection à scrutin. Félicitations Craig.

Doug Mercer, VO1DTM/VO1DM CEC – Responsable en chef des services extérieurs

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REGULATIONS AMENDING THE CONTRAVENTIONS REGULATIONS

There has been an announcement in the *Canada Gazette* as to changes in the Contraventions regulations concerning the enforcement of the *Radiocommunication Regulations*.

These changes will allow peace officers – including Municipal, Provincial and RCMP police officers – to issue tickets for certain offences under the *Radiocommunication Regulations*.

The changes may be seen at: <http://www.gazette.gc.ca/rp-pr/p2/2012/2012-11-21/html/sor-dors236-eng.html>

Bill Gade, VE4WO
RAC Regulatory Affairs

RÉGLEMENTATION MODIFIANT LES RÈGLEMENTS SUR LES CONTRAVENTIONS

Il y a eu une annonce dans la *Gazette du Canada* au sujet des changements dans les Règlements sur les contraventions à propos de l'application des *Règlements sur la radiocommunication*.

Ces changements vont permettre aux agents de la paix – incluant les agents de police au municipal, au provincial et de la GRC – d'émettre des contraventions pour certaines infractions commises à l'encontre des *Règlements sur la radiocommunication*.

Les changements peuvent être consultés à: <http://www.gazette.gc.ca/rp-pr/p2/2012/2012-11-21/html/sor-dors236-fra.html>

Billl Gade, VE4WO
RAC Affaires réglementaires

(Traduction par Serge Langlois, VE2AWR)

DISTRACTED DRIVING UPDATE – ONTARIO REGULATIONS CHANGED

In light of the prorogation of the Ontario Legislature on October 15, 2012, the Amateur Radio community in Ontario has raised questions regarding the status of the 5-year extension to the Amateur Radio exemption in the Display Screens and Hand-Held Devices Regulations that was announced by Minister of Transportation Bob Chiarelli on September 24, 2012. Former RAC Honourary Legal Counsel, Steve Pengelly, VE3STV, has advised that prorogation would have had no effect on the announced extension because it was contained in a regulation passed by an Order in Council.

To further address the concern, Radio Amateurs of Canada is pleased to inform Ontario Amateurs that Ontario Regulation 253/12 (which can be found at <http://www.e-laws.gov.on.ca/html/source/regs/english/2012/elaws_src_regs_r12253_e.htm>) has amended the Amateur Radio exemption sections of former Ontario Regulation 366/09. Specifically, the "January 1, 2013" portion of section 13(1) and the entirety of section 13(2) of Ontario Regulation 366/09 were struck out and replaced with section 3(1) and 3(2) of Ontario Regulation 253/12, stating the new January 1, 2018 deadline. The actual amended Ontario Regulation 366/09 can be found at <http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_090366_e.htm>.

Radio Amateurs of Canada will continue to pursue a permanent exemption for Amateur Radio operators in Ontario. Similar exemptions already exist in many other provincial jurisdictions in Canada – thanks in part to the efforts of local Amateurs and RAC's national strategy to address distracted driving legislation.

Radio Amateurs of Canada is Canada's national voice for Amateur Radio. Our efforts not only promote the Amateur Radio Service but protect it from regulatory interference that may lead to less capability to provide emergency communications. Not already a RAC member? Why not join today at <www.rac.ca> and find out about the many benefits our members enjoy across the country and the world beyond.

It is recommended that you carry a copy of your certificate and a copy of the exemption in your vehicle.

Jeff Stewart, VA3WXM, RAC Ontario South Director/Assistant Chairman Ontario Distracted Driving Committee on behalf of Bill Unger, VE3XT RAC Director Ontario North/East and Chairman of the Ontario Distracted Driving Committee

MISE À JOUR, DISTRACTIONS EN CONDUISANT – LA RÉGLEMENTATION EN ONTARIO MODIFIÉE

À la lumière de la prorogation de l'assemblée législative de l'Ontario le 15 octobre 2012, la communauté radio amateur en Ontario a soulevé des interrogations au sujet du statut de la prolongation de 5 ans pour l'exemption de la radio amateur dans les Règlements sur les écrans et appareils portatifs qui a été annoncée par le ministre des Transports Bob Chiarelli le 24 septembre 2012. Le précédent aviseur légal honoraire de RAC, Steve Pengelly, VE3STV, a donné avis que la prorogation n'aura aucun effet sur la prolongation annoncée parce qu'elle était contenue dans une réglementation passée par un arrêté en conseil.

Pour davantage donner suite, Radio Amateurs du Canada a le plaisir d'informer les radioamateurs de l'Ontario que la loi de l'Ontario 253/12, qui peut être consultée à: <http://www.e-laws.gov.on.ca/html/source/regs/french/2012/elaws_src_regs_r12253_f.htm> a modifié les sections d'exemption de la radio amateur de l'ancienne réglementation de l'Ontario 366/09. De façon spécifique, la partie du 1er janvier 2013 de la section 13(1) et la totalité de la section 13(2) de la réglementation de l'Ontario 366/09 ont été biffées et remplacées par les sections 3(1) et 3(2) de la réglementation de l'Ontario 253/12, en mentionnant la nouvelle date limite du 1er janvier 2018. L'actuelle réglementation de l'Ontario 366/09 peut être consultée à: <http://www.e-laws.gov.on.ca/html/regs/french/elaws_regs_090366_f.htm>.

Radio Amateurs du Canada va continuer de tenter d'obtenir une exemption permanente pour les radioamateurs de l'Ontario. Des exemptions similaires existent déjà dans plusieurs autres juridictions provinciales au Canada – grâce en partie aux efforts de radioamateurs locaux et à la stratégie nationale de RAC pour aborder la réglementation sur les distractions en conduisant.

Radio Amateurs du Canada est la voix nationale du Canada pour la radio amateur. Nos actions ne font pas seulement la promotion du Service radio amateur mais le protègent aussi contre de l'interférence réglementaire qui pourrait mener à une capacité moindre de procurer des communications d'urgence. Pas encore membre de RAC? Pourquoi ne pas vous inscrire aujourd'hui à <www.rac.ca> et vous renseigner sur les nombreux avantages dont bénéficient nos membres à la grandeur du pays et dans le monde entier.

Il est recommandé d'avoir sur vous une copie de votre certificat et une copie de l'exemption dans votre véhicule.

Jeff Stewart, VA3WXM – Directeur de RAC Ontario sud / Vice-président – Comité sur les distractions en conduisant de l'Ontario, au nom de Bill Unger, VE3XT – Directeur de RAC Ontario Nord-est / Président – Comité sur les distractions en conduisant de l'Ontario

(Traduction par Serge Langlois, VE2AWR)

HELP WANTED

Treasurer

The Radio Amateurs of Canada is looking for a Treasurer who is a Chartered Accountant, Certified General Accountant or Certified Management Accountant. A certification in Amateur Radio is optional. As RAC's financial advisor, we need someone to provide direction on the accounts and act as liaison with the external auditors. Experience with QuickBooks would be an asset.

Radio Amateurs of Canada is a non-profit corporation providing services to members and has a mandate to enhance Amateur Radio in Canada. 2011 finished with an operating surplus but a slight structural deficit which is on track to be redressed in 2012.

Please speak with your friends, there must be a RAC member who either qualifies or can approach someone for this volunteer position. Certification in Amateur Radio is not a requirement for this position. Interested parties please contact the RAC Corporate Secretary at <ve9glf@nbnet.nb.ca>.

Linda Friars, VE9GLF

RAC Acting Corporate Secretary

RAC Corporate Secretary

The Radio Amateurs of Canada is looking for a volunteer to fill the role of Corporate Secretary.

This position reports directly to the RAC President with a primary function as Secretary to the Board of Directors and the Executive Committee.

This requires high level multi-tasking, dealing with priorities, tracking issues and action items as well as preparing agendas and minutes of various meetings.

If you wish to assist your national organization, work with volunteers and have experience with full suite of Microsoft Office products we want to hear from you.

Please express your interest to the Acting Corporate Secretary Linda Friars, VE9GLF, at <ve9glf@nbnet.nb.ca>.

Geoff Bawden, VE4BAW
85 Barrington Avenue
Winnipeg, MB R2M 2A6
Tel. 204-295-0714
Email: ve4baw@rac.ca

A MESSAGE FROM THE PRESIDENT
UN MESSAGE DU PRÉSIDENT

RAC MANAGEMENT TEAM MEETING

The Board and Executive of RAC met in Ottawa from Friday, February 15 to 17. This was the first face to face meeting of the Board and Executive since October 2010.

At the October 2010 meeting the Board had developed a strategic plan designed to respond to the challenges facing RAC at that time and ensure the survival of RAC. The plan was to be accomplished over a two-year timeframe. That was executed and RAC moved from insolvency to solvency and reversed the trend of membership loss.

The purpose of this year's planning session was to make informed decisions relating to creating the 2013 budget, establish a context for decisions to be made in 2013-14 and look to the future.

The Board determined that it was time to move RAC from a survival mode to a growth mode.

RAC's primary tasks through 2013-14 are:

- to increase the number of Amateurs in Canada
- to increase the percentage of Amateurs that are RAC members
- to influence public and political opinion in order to protect and enhance Amateur Radio privileges

More details will be made available in the near future.

I would like to personally commend the participants who undertook their tasks with honesty, openness and constructive dialogue.

We have managed to hold in check the financial demon and RAC is now solvent. We are reorganizing in Ontario and have established a template for a new Field Organization which is being implemented. Our international reputation is strong and we were effective at the World Radio Conference. We have pushed back the spectre of distracted driving legislation in virtually all provinces including Ontario. In addition, I am pleased to announce that Ian MacFarquhar, VE9IM, will be taking over the role of Regulatory Affairs Officer and we are also pleased to welcome back three RAC Directors as described below.

2013 will be a great year for RAC...

LIFE MEMBERS UPDATE

Life Members who now receive the electronic version of TCA free of charge can now also get a paper copy of TCA for only $8 (in Canada only; see page 6). Please contact RAC HQ at <rachq@rac.ca> to order your subscription. See page 6 for more information.

RÉUNION DE L'ÉQUIPE ADMINISTRATIVE DE RAC

Le Conseil d'administration et l'Exécutif de RAC se sont réunis à Ottawa du vendredi le 15 au dimanche le 17 février. C'était leur première rencontre face à face depuis octobre 2010.

À la réunion d'octobre 2010, le Conseil d'administration avait développé un plan stratégique pour répondre aux défis que posait la survie de RAC à ce moment-là. Le plan devait se concrétiser en deux ans. Ce qui fut fait, et RAC a vu son bilan passer du négatif au positif en plus de réussir à renverser la tendance à la baisse du nombre de ses membres.

Les raisons de la session de planification de cette année sont à l'effet de partager des informations pertinentes relatives à la préparation du budget 2013, d'établir le contexte des décisions à prendre en 2013-2014 et de tracer les perspectives d'avenir.

Le Conseil d'administration estime que le temps est venu de passer d'un mode de survie à un mode de croissance.

Les tâches prioritaires de RAC en 2013-2014 sont comme suit :

- accroître le nombre d'amateurs au Canada
- accroître le nombre d'amateurs membres de RAC
- agir sur l'opinion publique et influencer les décisions politiques de manière à protéger et à renforcer les droits et privilèges des radioamateurs

Plus de détails seront disponibles dans peu de temps

J'aimerais personnellement féliciter les participants qui accomplissent leur travail avec honnêteté et ouverture d'esprit et qui se prêtent au dialogue constructif.

Nous avons travaillé de manière à reprendre et à garder le contrôle de nos finances. Si bien que RAC est maintenant redevenu solvable. Nous nous réorganisons en Ontario. Nous avons établi l'ensemble des conditions pour une nouvelle « Organisation sur le terrain » maintenant en voie d'implantation. Notre réputation à l'international est solide et nous avons fait preuve d'efficacité à la Conférence World Radio. À toute fin pratique, nous avons écarté le danger d'une législation sur la conduite inattentive dans virtuellement toutes les provinces, incluant l'Ontario. Par ailleurs, il me fait plaisir d'annoncer que Ian MacFarquhar, VE9IM, a accepté le rôle de responsable des Affaires règlementaires. Nous sommes également heureux du retour de trois directeurs (voir ci-dessous) à qui nous souhaitons à nouveau la bienvenue.

2013 sera une très bonne année pour RAC...

MEMBRES À VIE : MISE À NIVEAU

Les membres à vie qui, en ce moment reçoivent gratuitement la version électronique de TCA, peuvent recevoir aussi, maintenant, la copie papier de TCA pour aussi peu que 8 $ (au Canada seulement ; voir page 6). Veuillez s.v.p. communiquer avec le siège social de RAC à <rachq@rac.ca> pour placer votre commande.

Traduction par Claude Lalande, VE2LCF

HELP WANTED

RAC is looking for the following positions: Treasurer; Corporate Secretary; Public Relations Officer; Deputy Directors; and more. Don't hesitate to raise your hand! To let us know your interest, please contact me at <ve4baw@rac.ca>, with a copy to RAC Office Manager Frank Greene at <rachq@rac.ca>. Please see pages 7 and 23 for more information.

WELCOME BACK!

RAC Director for British Columbia / Yukon

Congratulations are extended to Mr. William (Bill) Gipps, VE7XS, who was recently acclaimed as the RAC Director for British Columbia / Yukon. Mr. Gipps ran unopposed, eliminating the need for a balloted election. His term as Director will be for two years starting January 1, 2013 and ending on December 31, 2014.

Mr. Gipps has been an Amateur operator since 1989 holding call signs VE7XS, VE7ISV, VA7XXI, V31BG and has been involved in many aspects of the hobby. He recently travelled as a team member with call "7P8BG" on a DXpedition to the Kingdom of Lesotho.

RAC Director for Midwest

Congratulations are extended to Mr. Derek Hay, VE4HAY, who was recently appointed as the RAC Director for the Midwest. Mr. Hay has generously stepped forward to continue his RAC Director's role after there were no eligible nominees resulting from a second call for nominations according to the *RAC Constitution, Section 7, Article 6 i)*. His term as Director will be for two years starting January 24, 2013 and ending on December 31, 2014.

Mr. Hay has been an Amateur operator since 1990 and has been involved in many aspects of the hobby. Derek has been Chairperson for the RAC Administration and Finance Committee for the past two years. This time of year you will find Derek making calls of a different kind from the hack at the curling rink.

RAC Director for Atlantic

Congratulations are extended to Mr. Everett Price, VO1DK, who was recently acclaimed as the RAC Director for the Atlantic. Mr. Price ran unopposed, eliminating the need for a balloted election. His term as Director will be for two years starting January 1, 2013 and ending on December 31, 2014.

Mr. Price has been an Amateur operator for over 32 years and has been involved in many aspects of the hobby. He can also frequently be heard as marine mobile enjoying his sailing sloop "IdlEase" in eastern Newfoundland coastal waters.

Geoff Bawden, VE4BAW
RAC President and Chair

TCA

NEW ARTICLES WANTED: DEADLINE MARCH 15

The deadline for the May-June 2013 issue of TCA is March 15. We are looking for new articles: both technical and non-technical. Please send your submissions in now to <tcamag@yahoo.ca>.

BESOIN D'AIDE!

RAC cherche à combler les postes suivants : trésorier ; secrétaire corporatif ; responsable des relations publiques ; assistants directeurs ; et plus. N'hésitez pas à lever la main! Pour nous laisser savoir que vous êtes intéressés, veuillez s.v.p. communiquer avec moi à <ve4baw@rac.ca>, et aussi avec le gérant du bureau, Frank Greene à <rachq@rac.ca>. S.V.P. allez aux pages 7 et 23 pour plus d'informations.

Traduction par Claude Lalande, VE2LCF

BIENVENUE À NOUVEAU!

Directeur de RAC pour la Colombie-Britannique/Yukon

Nous exprimons nos félicitations à M. William (Bill) Gipps, VE7XS, qui a récemment été proclamé directeur de RAC pour la Colombie-Britannique/Yukon. M. Gipps s'est présenté sans opposition, éliminant le besoin d'une élection à scrutin. Son terme en tant que directeur le sera pour une période de deux ans débutant le 1er janvier 2013 et se terminant le 31 décembre 2014.

M. Gipps est radioamateur depuis 1989, ayant détenu les indicatifs VE7XS, VE7ISV, VA7XXI, V31BG, et il a été impliqué dans plusieurs aspects du hobby. Il a voyagé récemment en tant que membre d'une équipe avec l'indicatif 7P8BG lors d'une expédition DX au Royaume du Lesotho.

Directeur de RAC pour l'Atlantique

Nos exprimons nos félicitations à M. Everett Price, VO1DK, qui a récemment été proclamé directeur de RAC pour l'Atlantique. M. Price s'est présenté sans opposition, éliminant le besoin d'une élection à scrutin. Son terme en tant que directeur le sera pour une période de deux ans débutant le 1er janvier 2013 et se terminant le 31 décembre 2014.

M. Price est radioamateur depuis plus de trente-deux ans et a été impliqué dans plusieurs aspects du hobby. Il peut être fréquemment entendu en maritime mobile profitant de son voilier sloop le "IdlEase" dans les eaux côtières de Terre-Neuve.

Directeur de RAC pour le Midwest

Nous exprimons nos félicitations à M. Derek Hay, VE4HAY, qui a récemment été nommé en tant que directeur de RAC pour le Midwest. M. Hay s'est généreusement proposé pour poursuivre son rôle de directeur de RAC après qu'il n'y eut aucun candidat éligible à la suite d'un second appel pour des candidatures (en accord avec la *Constitution, section 7, article 6 i*). Son terme en tant que directeur le sera pour une période de deux ans débutant le 24 janvier 2013 et se terminant le 31 décembre 2014.

M. Hay est radioamateur depuis 1990 et a été impliqué dans plusieurs aspects du hobby. Derek a été président du comité de l'administration et des finances de RAC pour les deux dernières années. En cette période de l'année vous trouverez Derek faisant des appels d'un autre genre à partir de la loge d'une patinoire de curling.

Geoff Bawden, VE4BAW
Président-directeur général
Radio Amateurs du Canada

– Traduction par Serge Langlois, VE2AWR

TCA

SIX METRES AND DOWN

VHF BANDS WARM UP FOR 2013...

Dana Shtun, VE3DSS/VE3KU
14 Ashwood Crescent
Toronto, ON M9A 1Z3
E: ve3dss@rac.ca /
ve3ku@acanac.net
W: www.qsl.net/ve3dss

By the time you read this column, we should hopefully be saying goodbye to winter conditions on our VHF bands and look forward to better weather that brings enhanced ground wave conditions, meteor scatter, tropo and Sporadic E.

Since Solar Cycle 24 seems to be either DOA or slow to arrive, there has not been much opportunity to catch F2 DX on 50 MHz this Cycle, except for a bit in November of 2011.

So how do you get ready for the spring and summer activity?

First, and most importantly, make sure your antennas are working. Check your coax, connectors and tower for damage, water infiltration etc.

Keep in mind that, if you are using any RG type cables, they don't last forever – even if sealed – so you may see a 1:1 VSWR, but not hear well – indicating that the power is going into the cable but being lost in its trip to your antenna.

Moisture in a connector can be a headache as can connectors pulled out of barrels, or broken solder joints… so make sure everything is secure.

The same goes in the shack with cabling and connections. I'd like to know who called this all "Wireless" anyway…. hi.

Check your beam headings, often rotors and pipes slip during high winds and you may find your beam "off" its calibrated direction. By the way, slipping is probably better than "breaking", but either way it's a pain.

If your gear hasn't been used much make sure it's all operational.

ROVERING

With all the nice small radios and solid state amplifiers around, Rovering can be a great way to get out and enjoy the spring and summer weather.

From a mountain top, you can get out like a bandit and enjoy some nice scenery as well. The microwave people all know this secret and for 10 GHz operation some awesome contacts have been made in Eastern Ontario and Quebec!

No mountain? Try a high hill, or if you are up for pileups, go find a "Rare Grid Square". Here in Canada, we have an abundance of rare grids that are road accessible!

Join in the fun and bring some excitement back into your part of the hobby by trying something new.

SOFTWARE DEFINED RADIOS AND TEST GEAR

I've been watching the development of this technology over the last 15 years, since seeing the early versions of the Flex radios at Dayton and at the Central States VHF Conference when we hosted it in Mississauga back in 2005. A lot has happened in this area and the variations on the theme have multiplied exponentially.

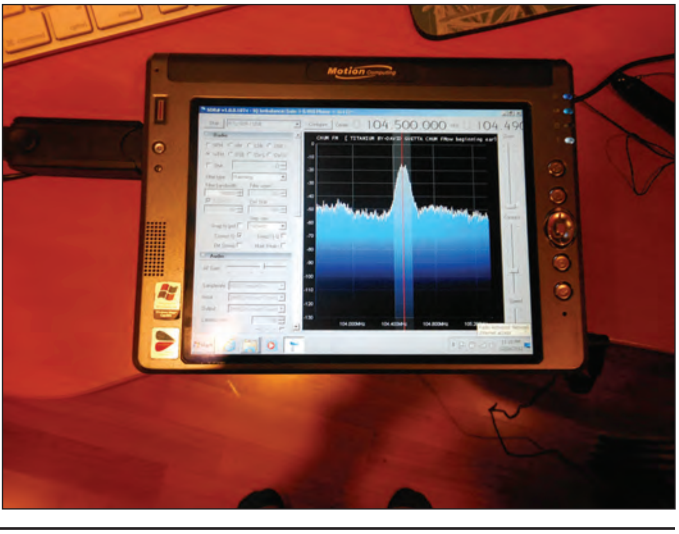
I've been using a Softrock SDR with my K3 to give me a poor man's Spectrum Display, and frankly for the $20 and build time, it's was worth the effort just to learn how this all works.

I had also seen some info on the Funcube Dongle and a bunch of RTL 2832U type dongles that work well and tune anywhere from 24 to 2200 MHz.

I had been looking for a used Spectrum Analyzer and had filed away a source for these on eBay. I was then talking with Rick, VA3WU, and I mentioned the dongles and he said he had them in hand from a source in Hong Kong and that they actually worked as described using a program called SDR#! So I took the plunge and ordered a couple and they arrived just before Christmas. Upon hooking up voila they worked!

At right is a picture of my poor man's portable Spectrum Analyzer using the dongle and a very old tablet PC, tuned to the FM Broadcast band for fun – so if you are in need of test gear to fill out your station, try this approach!

Many other options exist of course, and development continues using Linux, Windows and Mac iterations. The technology is so well developed that there are now numerous transceiver packages available and transverter options as well so you can literally assemble a QRP (and QRO) station using SDRs or buy them off the shelf from Flex, Elecraft and others. Who says Amateur Radio isn't fun?



SDR Dongle and Tablet PC make a $20 portable Spectrum Analyzer!

JANUARY ARRL VHF SWEEPSTAKES

The January SS was interesting this year – given the weather that swept through the east here that is. I was able to find time to get on 50, 144, 903 and 1296 MHz and hooked up with Bob, VE3WY and Steve, VE3SMA, and also Steve, VE3ZV, on 903 MHz during this contest.

I'm hoping that more will be workable once I get a bit more power going on the band. Don't forget that our 33 cm band exhibits excellent propagation characteristics similar to 432 MHz, despite that racket from those damn smart meters that were dumped in there despite the fact that there is a whole band available for metering that sits unused. Go figure.

1296 MHz was quite good at times and Stan, VA3ST, was heard working down into Ohio and the Eastern US from his QTH in Fonthill. We had worked Steve, VA3SC, on 1296 in mid-December, but missed him and Peter, VA3ELE/r, as well.

VA3ELE Rover from FN04

50 MHz provided some very short Sporadic E openings from this location during the contest. We did note that the VE2 gang were better aligned to catch the clouds and think they had a broader opening as did the US East Coast.

VE2XK in FN07 commented that it was –30C up his way during the contest.

On 144 MHz, activity was high and we even caught some tropo into W9-land here, very late on Sunday night of all times. It was good to work Ray, VE3FN, in Ottawa and Don, VE2DFO, near Montreal as well despite the poor conditions on Saturday.

A number of Rovers were out braving the weather including VE3ELE, VE3RKS and VE3OIL.

It will be interesting to see how Contest Club Ontario did in the club standings!

Out in British Columbia, John, VE7DAY, reported working Es on 50 MHz during the contest with a lot of W7 and 6 grids in the log!

50 MHZ ACTIVITY

Late December brought an unusual opening starting with very short Skip and backscatter to the south of Toronto on December 28 with Rich, K1HTV, in Virginia worked, followed by stations in Florida and then down to TI8AA in EK77, TI2ALF in EJ79 and YS1AG in EK53.

December 30 found Yuri, UT1FG/mm, worked from water grids FL26 and FL16.

December 31 brought a brief double hop opening to the west with WA7NB in DM 42 worked and others on the west coast heard.

January 1, 2013 started with a bang as stations in Maine were in 60 over S9; K1GUN was full peg on the meter here for a couple of hours around 2200 UTC. There was a hot spot out over the south Atlantic which supported propagation down into Brazil, with PY1RO in GG87 and PY1NX worked and PY4RGS heard. Many others caught this as well including VA3WU and VA3DX. Also worked on scatter were Bunky, K4EJQ, in Tennessee EM86 and K4MQG in EM96 in Virginia.

There were some good openings from VK and ZL into the southern US and some really close tidbits into Ontario.

Mike, VE3FGU, reports hearing ZL1RS on January 1, and ZL1RS worked into Michigan and Ohio on December 31. 5W1SA spotted K5RK at 0129 on December 30 as well.

During the early part of January we found a huge uptick in the number of sunspots, hitting near the 200 mark and the solar flux jumped up into the 180 range.

At this writing things have subsided but just perhaps we will get some F2 in the fall of 2013.

Well that's it for now 73 and see you on the bands above 50 MHz!

Dana, VE3KU/VE3DSS

FEEDBACK: LETTERS TO THE EDITOR

Follow up to Logbook of The World

It was with considerable interest that I read the piece, "Introduction To The ARRL Logbook of The World", in the January-February 2013 issue of "The Canadian Amateur".

I found the author's choice of words regarding the *"various awards and plaques (that) have already found their place on the wall of your shack"* to be in direct contradiction to what I perceive the spirit of Logbook of The World (LoTW) to be: i.e., an impersonal, self-serving and expedient mode of simply garnering contact confirmations.

If this new technology prevents one from displaying physical evidence of one's accomplishments on the air in the form of hard-copy QSL cards, why then would this same user feel any obligation, or need, to display the "spoils" of confirmations in award/plaque form? If there is pride in having framed certificates on one's walls, what of the pride gained in displaying the documented QSOs of what are surely well-earned on-the-air feats in and of themselves? And what if the sponsors of these same awards elected to confirm the accomplishments of their earners strictly via electronic means, as well? Would they still bear the same value to recipients or would something very real and irretrievable be lost forever?

He goes on to remark – quite accurately – that *"the exchange of beautiful paper QSL cards...is a statement of art."* How very true – and permanent, as well. Can the same be said about impersonal electronic data residing in the cyberspace that is LoTW? This is a medium, after all, that remains accessible and perceptible for only as long as the power might stay on!

What a pity it is that Amateur Radio is rushing headlong into this current phase of easy disposability and *"paper trail-less"* instant gratification. I am hardly one to rail against new technology – yet, in this particular instance, I see a deliberate and contrived erosion of long-standing Amateur tradition – just another exercise whose unexpected fallout shall surely be the absence of our proverbial *"footprints in the sands of time"*.

Edward P. Swynar, VE3CUI/VE3XZ
Newcastle, Ontario

***Note:** Please see the article "So Many QSL Cards: So Little Wall Space", by Gary Skett, VE7AS, on page 27, Ed.*

URBAN EMI CHAOS: MANAGING THE COEXISTENCE OF INCOMPATIBILITIES

Mike Okincha, VE3PBE

This is a brief story of one Amateur Radio hobbyist's struggles with Electromagnetic interference (EMI) which was causing erratic flashing houselights, tripping Ground Fault Interrupters (GFI) and false fire alarms. Most were overcome without a divorce, moving to a new location, spending a lot of cash or giving up the hobby. Simple workarounds were finally found. But this wasn't quick nor easy.

BACKGROUND

Upon retirement, we downsized to a new, but smaller, two-story detached house, on a tight 36 foot x 82 foot subdivision lot. Neighbouring houses are only four to six feet apart. In these cramped spaces an antenna system for HF (80-10m) was needed. This was a challenge of many dimensions.

Following *much* consideration, I decided upon an attic installation. I was hoping for at least 5 dBi gain and to be able to get by using less than 100W.

After months of computer modelling with 4NEC2 software, a unique two-element wire beam emerged. The modelling incorporated metal eavestroughs and downspouts but didn't include any house wiring that in places could be less than eight feet away. Ultimately, this last item proved to be very problematic.

THE PROBLEMS DISCOVERED

After installing my wire beam(s) the HF testing began. All Hell broke loose!

When I was on 40m, lights on touch dimmers started to misbehave all over the house.

Then, while I was on 20m, my wife discovered that the ensuite bathroom was in darkness – the dedicated GFI (ground fault interrupter) had tripped.

Later, as I increased power levels on 40m, our five inter-wired smoke detectors started to go into alarm. Every time the transmitter was keyed up, we had chaos in suburbia!

So let's get right to the process of finding the "ghosts", their source and possible solutions. In three groups, they include: Touch Dimmers, Smoke Alarms and GFIs.

Cautions

The reader is cautioned that what is described herein is what I did in my own "crisis" situation. It is provided to help the reader appreciate and understand how typical domestic devices can be affected by close proximity to HF antennas. It is **NOT** to suggest or encourage the reader to follow similar procedures or to apply these workarounds. In fact, I would strongly discourage most Amateurs from tinkering with power circuits or smoke alarms altogether. Instead, they should focus on moving their antennas *away* from affected devices and/or switch to QRP. To this end, a simple EMR field measuring device and EMR guidelines are also provided.

GROUP 1: TOUCH DIMMERS

The first devices misbehaving were the light dimmers in our house. They immediately and randomly changed their brightness settings as soon as you keyed up *any* transmissions.

The problems were mostly in the capacitive sensor circuits used for the touch-dimmers. But for some, there was just too much RF in the power line for the circuits to handle. (See my GFI issues later.)

While I was able to adequately desensitize one lamp, it was simpler to just replace all of the touch-dimmers with corded manual slide-dimmers from IKEA. (Model name DIMMA, Article # 100.631.48, priced at $9.99.) Problem fixed. Getting rid of these also helped reduce some receiver noise.

GROUP 2: SMOKE ALARMS

40m seemed to be the sweet spot for these alarms. Eight to 10 seconds after a transmission started, I had to abandon the contact (QRT). Embarrassing as heck!

Smoke Alarm Background

We have five Kidde brand smoke alarms in our house; one combination CO/ionization detector with battery back-up and four ionization-only detectors. By Code in Ontario, they all have to be permanently wired into a 120VAC circuit and their alarm signals have to be inter-wired. So, if one goes off, they all go singing together – like screaming chipmunks on steroids.

We have a two-story house with a connected garage and the bedrooms are on the second floor. The Code requirement is to have a CO (Carbon Monoxide) detector nearest the sleeping area to be part of the overall system. This detector was eight feet away from my 40m beam.

I discovered that there were two sensitive areas in the fire alarm detector and signalling system. Each was masking the other. The CO detector was removed to isolate the problems.

Common Alarm Signalling Line – Red Wire

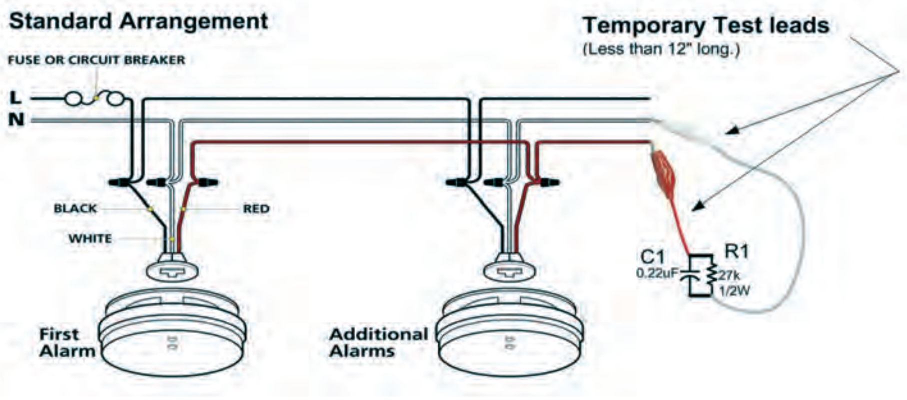
The RED alarm interconnecting wire was one source of alarms. With the CO detector completely out of the circuit, I could still trip the remaining four ionization detectors with RF on 40m. Some manufacturers suggest that ionization detectors are the most tolerant to EMI, followed by photoelectric detectors and with CO detectors being the least tolerant.

Bench Testing

One of these ionization units was taken to my test bench. On the RED wire, I measured (relative to the white/NEUTRAL line) an impedance of about 20k to 30k Ohms in monitoring mode, and about 300 Ohms and 8.5V when the unit is in alarm and signalling mode.

These detectors' audible signalling circuits seem to respond to DC voltages of >3.5V to a max of 8.5V. There is no ground connection on these units. The NEUTRAL conductor is their reference.

Figure 1: CO and Ionization Detector Interwiring



Testing notes:
1) Only one C1 and R1 needed for whole signaling string placed nearest the RF source.
2) C1 and R1 ratings should be beyond 250VAC. I connected the leads only with the circuit power OFF. I removed them after testing.

By injecting a CW RF signal into this RED line, the frequency for alarm sensitivity was observed to be from 6.0 MHz to 18 MHz. By adding a simple 0.22uF, 400VAC metal foil capacitor to NEUTRAL, all EMI stopped. To ensure that no net DC voltage remained, I added a 27k Ohm, 1/4 W, 300 Volt rated resistor across this capacitor.

CO Detector Alarms

The CO detectors have a gas sensor about the size of a 1.5V "C" battery. Manufacturers of these types of devices and their associated circuitry advise that they are sensitive to EMI. They operate in millivolts and nano amps. When exposed to RF, the 120V wiring acts like an antenna and counterpoise and intensifies the voltage that the sensor circuit sees. It takes time to build up to an alarm threshold and takes time to clear.

When disconnected from the household AC circuits, this detector with its battery did *not* false alarm. This is because the whole detector essentially sees the same RF level and therefore has no net voltage imbalance to false trigger it. This explains the stories from Amateurs who, having replaced wired-in units with battery-only CO detectors, got rid of similar false alarms. However, if the RF intensity is high enough, it can still be triggered. By Code, this battery-only option is not permissible for our house.

When I placed an aluminium-foil shield (Reynolds foil wrap) around the whole detector, and **grounded** it to the house ground wiring at the same outlet, the RF susceptibility stopped! As a confirmation, the same was true for a metal coffee container with the plug-in CO detector.

When I removed the ground wire, the false alarm came back. Yes, the foil retransmitted the RF into the detection circuits. **Note: You need to shield the detector and ground that shield.**

Detector Solution Results

After proper shielding and grounding, the CO detector has remained well behaved. For ceiling mounted detectors, either the back of the junction box can be covered with metal foil and grounded and/or a round aluminium disc can be placed under the ceiling mounting base and grounded to the ground wire/screw inside the junction box. In my case, I placed shields both above and below – using galvanized sheet metal left over from air duct installations – and soldered ground wires to them.

By temporarily adding the capacitor and resistor to my installation, the Interconnecting alarms appear to have been immunized from EMI.

Figure 2: Shielding Details for CO Detector

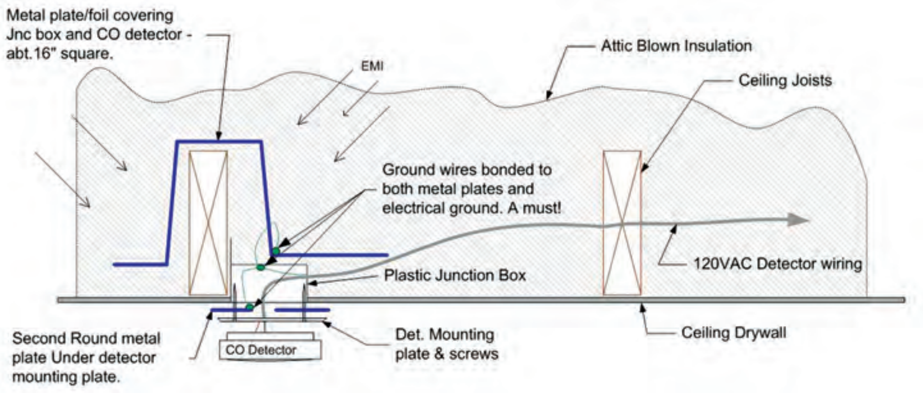
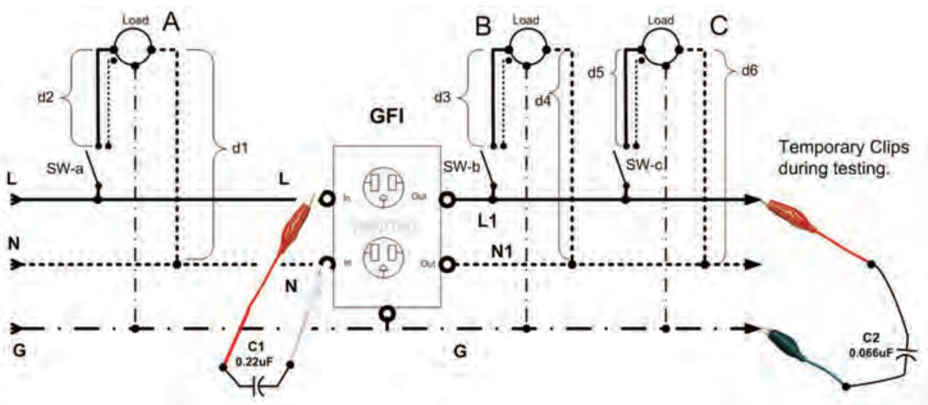

Metal plate/foil covering Jnc box and CO detector - abt.16" square.
EMI
Attic Blown Insulation
Ceiling Joists
Ground wires bonded to both metal plates and electrical ground. A must!
Plastic Junction Box
120VAC Detector wiring
Ceiling Drywall
Second Round metal plate Under detector mounting plate.
CO Detector
Det. Mounting plate & screws

Figure 3: GFI Trip Stabilization (Testing)
(20m sensitivity)



Notes:
1) In "A" Neutral path length is d1 + d2, while Line path length is only to SW-a. Thus, induced volts higher in Neutral.
2) Same applies for B & C but with more load circuits.
3. When switches are closed, (loads turned ON) circuits are of equal length. Induced voltages appear equal.
Testing Results:
Simplest solution was to try to bypass the differential RF voltage with appropriate capacitors.
4) C1 was found to be 0.22uF, 400V, non-polarized and bypasses (balances) RF currents *before* the GFI.
5) C2 was fond to be 0.066uF (0.022 x 3, 400V, n.p.) and bypasses currents in wiring of Loads B&C to Ground. And not to N1. Reference appears to be ground on the "Out" side of the GFI.
6) I wired with circuit power OFF. Some experimentation may still be needed. I double checked by tripping the GFI with a GFI tester. Remove test components with power OFF.
7) In my case, I temporarily wired the devices into a plug as shown in the photos. This is NOT a permanent solution.

After testing for several weeks, no more false alarms were experienced from either the CO detector or the Interconnection. This confirmed that the above diagnosis has reasonable validity.

While the basic CO detector shielding is non-invasive and can be a good safe, permanent solution, the addition of the bypass capacitor and resistor to the RED signalling line remains problematic. I am planning to realign my 40m elements and move them away from the wiring and hopefully this will eliminate the problem.

GROUP 3: GFI CIRCUIT TRIPPING

A GFI trips if it senses unequal currents (typically 5 milliamps or less) in the LINE and NEUTRAL conductors.

Why are they unequal with just RF exposure?

Standard North American Wiring codes NEC and CEC/ESA allow only the LINE (Black) wire of a 120 VAC circuit to be switched, while the NEUTRAL (White) must go directly to all the loads.

If you have a number of circuits such as lamps, fans, etc. fed by the GFI circuit, the electrical current induced by RF travels along the White wire, to the load, through the load and to an open ON/OFF switch.

The Black wire is connected to the other side of the open switch. This combined NEUTRAL + Load + Open Switch LINE wire path is much longer than the Black line wire path to that open switch.

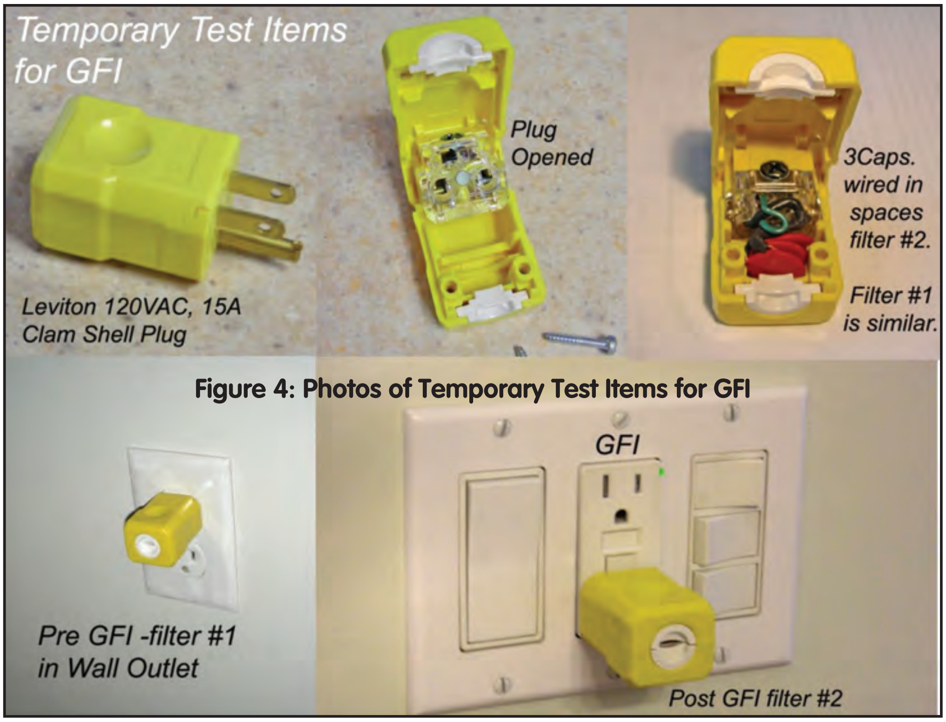

Temporary Test Items for GFI
Plug Opened
3Caps. wired in spaces filter #2.
Filter #1 is similar.
Leviton 120VAC, 15A Clam Shell Plug
GFI
Pre GFI -filter #1 in Wall Outlet
Post GFI filter #2

Figure 4: Photos of Temporary Test Items for GFI

Because of the difference in wire lengths, the induced voltages will be quite different on these two wires. This is Differential mode noise and the GFI sees this imbalance and trips.

The other question is "What frequency is it most susceptible to?" It is also highly dependant on the geometry of that circuit. My GFI loves the 20m band and needs less than 50W to trip.

GFI WORKAROUNDS

To force the RF potentials to be the same on both the line and neutral wires, I used RF bypass devices (capacitors) to equalize the net (RF) voltages that the GFI sees. In my case, I had switched circuits both before and after the GFI in the main power feeder circuit. By using capacitors before and after the GFI, I managed to bypass the RF away from the GFI and thus lessen the induced imbalance.

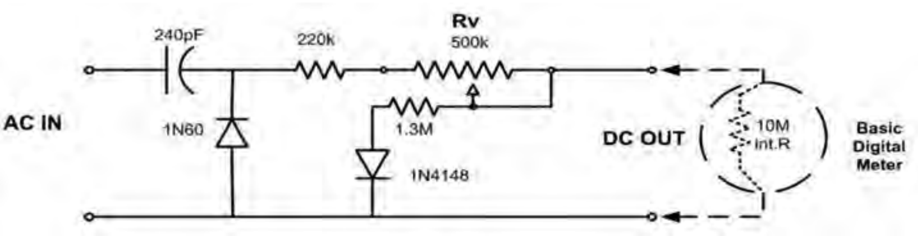
As tested with an approved GFI tester, my GFI still detects and responds quickly to its designed trip levels.

Above is another temporary way of attaching the C1 and C2 capacitors without entering the house wiring and electrical junction boxes.

Filters 1 and 2 are squeezed into a Leviton clam shell plug and plugged into outlets providing the similar function as C1 and C2 respectively, as shown in the schematic provided in Figure 3 on page 13. It is easy to change, remove and safer than test lead connections but it is still *not* a permanent solution.

The information provided herein is only a sample of what may be needed to reduce the GFI tripping. The workarounds may be highly dependant on the specific affected devices, antenna type and the overall wiring geometry.

Figure 5: RF to DC Probe



Notes:
1) Circuit is essentially the same as a Fluke 85RF probe.
2) Adjust **RV** to read 1VDC **OUT** with 1.414 V, 0->Peak **IN** @ 7 MHz sine or CW wave.
3) Reasonably flat response from 400 kHz to 80 MHz. Usable to 240 MHz.
4) Max. AC in 30V.
5) Can go to higher frequencies if better layout and components are used. 400 MHz Max.

With both the GFI's and the Kidde alarm detectors, we set out to diagnose the nature of the problems we experienced and demonstrated how they could be easily remedied at the manufacturing level.

EMI MEASUREMENTS FOR HUMAN SAFETY AND INTERFERENCE DIAGNOSIS

To determine whether your EM field strength is an EMI problem and reasonably safe, you need to measure it, preferably at the site of the interference. An inexpensive and simple option is to build a simple RF to DC probe that can connect to a common digital multimeter with an input impedance of 10 Meg Ohms. It is similar to a Fluke model 85 RF probe and worked well enough for HF. It measures electric field strength in Volts per meter. Make certain that the meter resistance that the probe sees is 10 Meg Ohms.

After a simple calibration, the probe was used with a basic multimeter. It agreed with an HP 3403C true RMS meter reasonably well with a sine-wave input. But it also responded to peak signals more quickly with higher readings. On SSB, the waveforms are not pure sine waves so true RMS values will be lower. However, the EMI affected devices will often see the peak values. In these instances, the homebrew RF probe will be more useful to detect marginal problems.

The graphs provided in Figure 6 on the next page show the measurements taken on 40m, 20m and 80m which were the HF bands of interest. They are shown in order of their EMI contribution.

With reference to Personal Safety, Health Canada provides Safety Code 6 (2009) for "Limits of Human Exposure to Radio Frequency Electromagnetic Energy". A copy of Safey Code 6 can be obtained by sending an email to Health Canada at <publications@hc-sc.gc.ca>. For Electric fields in the Amateur HF bands, the limits range from 28-40 Volts/meter RMS, averaged over a six-minute time window. Other standards (IEEE and ANSI) have similar values but with minor variances.

My highest reading nearest the antenna was on 40m at about 6Vrms/m, but that was not a sustained reading. I read a 15V/m peak in the hamshack ceiling, nearest an antenna element. Therefore, none of the EMI energy "ghosts" posed significant health problems. Most importantly, at greater distances from the antenna, such as in living areas, my readings fell to well below 1V/m at 100W output levels.

Ken Grant, VE3FIT (who worked with hospital equipment) forwarded to me a standard that indicated that electric fields to which medical equipment may be exposed should be kept below 3Vrms/m. This appears to be consistent with the alarm signalling circuits within Kidde alarm systems that trigger just above 3.5 Volts.

SUMMARY OF BASIC ACTIONS TO MANAGE EMI

1) Use common sense. Move your antenna system as far away from household systems and people as you can. The farther the better. That's why most kilowatt Amateurs have big lots.

2) Use as little power as necessary to make your contacts (QSOs).

3) Touch (lamp) dimmers are inherently problematic. Replace them with slide dimmers whenever possible. Or, even better, just use simple switches.

4) The smoke alarms affected in this case were CO and ionization units. The CO alarm detectors simply needed good shielding and grounding. This was the best solution. Today's plastic electrical boxes and lack of device grounding make these items a problem for Amateurs.

Applying a bypass capacitor on the Red SIGNAL line to NEUTRAL to reduce ionization system false alarms is *not* recommended. Relocating your antenna is a better and more permanent solution. This is my current plan.

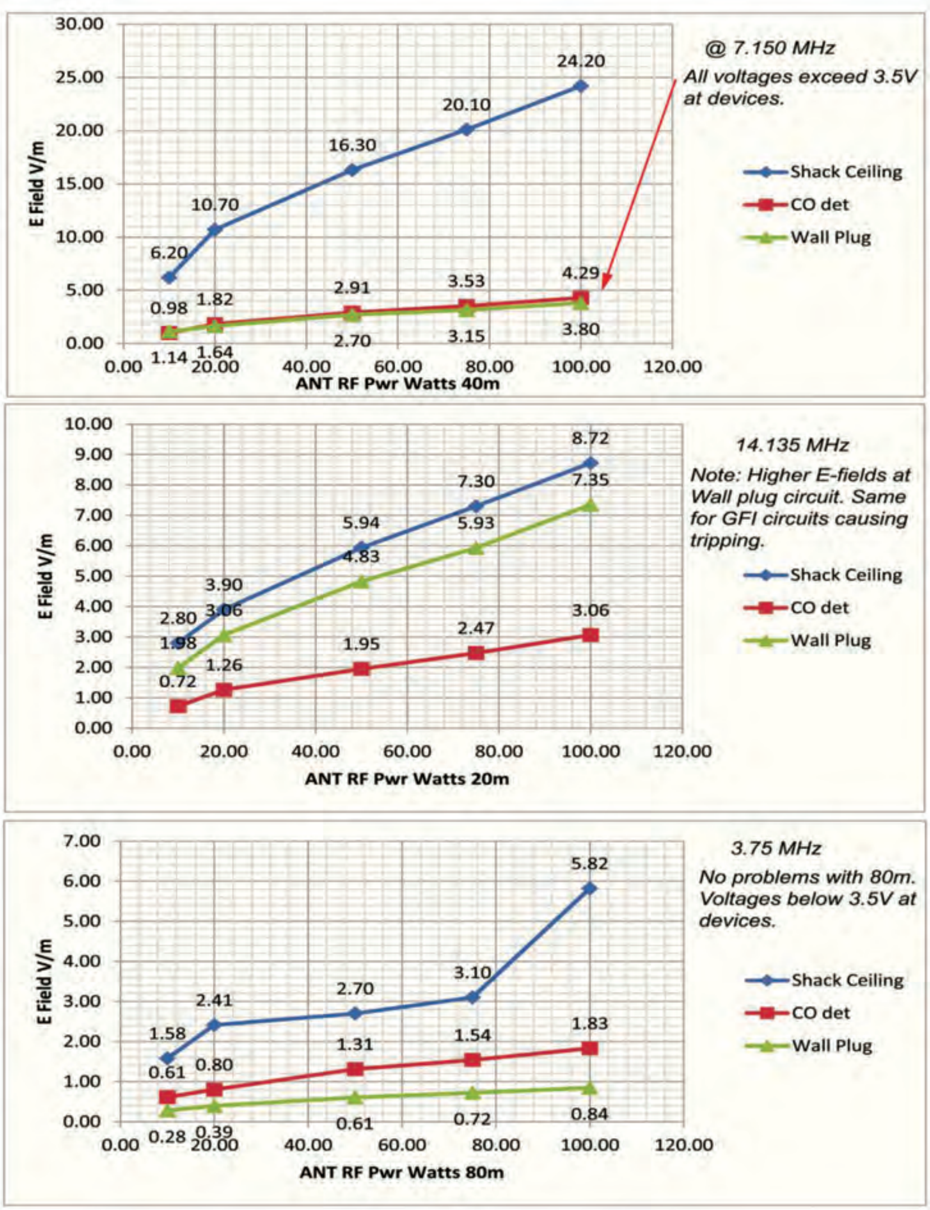
5. For RF/EMI-affected GFI circuits, it was a matter of understanding the problem, followed by trial and error testing. Workarounds for each circuit and device scenario can be different. Using the plug-in devices was safer than using alligator leads and was done *only* for testing.

A recommended solution would be to turn ON a load (light, fan or heater) both before and after the GFI to rebalance the circuit lengths or, to trip the GFI (by pressing its TEST button) before the start of transmissions.

6) Use an EMR measurement device such as the simple one shown herein. To confirm EMR levels at the location of affected people and devices is key and finds the ghosts. Anything above 3V/m at the devices will likely cause problems. Some touch lights triggered at less than 1V/m. Adjust your transmitter power levels, geometry and proximity to reduce these levels.

Figure 6: Measured RF E-field at CO Detectors

The graphs below are placed in order of which caused the most EMI. 40m, 20m, to 80m.



CAUTIONS

An extra precautionary note:

The reader *must* understand that touching house wiring, life-safety systems and GFI's (let alone making any changes) is inherently unsafe unless you are trained and fully qualified to do so. Most Amateur Radio operators understand this but it needs repeating, particularly for beginners.

This is a sociable hobby and beginners should seek the help of their local Amateur Radio Club or friendly electrician to help chase down their EMI ghosts.

CONCLUSIONS

The fundamentals are simple. We are applying more HF electromagnetic energy to devices than they were designed and built to withstand. What is provided herein are only short-term workarounds that helped avert my EMI crisis. While they are only temporary, they have given me time to work on better, longer term solutions. Very likely, these may also be unique to each Amateurs' situation and environment.

While theory can get you in the ballpark, experienced tinkering can get you on first base. The home run comes from designing out the problems in the first place. In the meantime, all we are doing is accommodating and managing the co-existence of incompatibilities. These are only "symptom solutions".

Hopefully, this article has given the reader some insight into some issues, tools and some practical approaches to manage their EMI symptoms.

Happy EMI Ghost-busting!

SOME ADDITIONAL INFORMATION

The following Systems were ***not*** affected by HF EMI after modifications were made:

1) Garage door openers

2) Wireless Remote controls and remote temperature sensors

3) Atomic clock corrections by radio

4) Wi-Fi Access Points @ 2.3 GHz and 5 GHz

5) 2m Base station running 45W and ground plane vertical antenna 10 feet away from the HF beam

6) Hardwired telephones

7) 100BaseT wiring – extensive

8) Cable TV wiring – extensive

9) Wireless telephones (Panasonic 5 GHz)

10) Digital thermostats and HVAC systems.

11) Sony Vaio laptop with dual band Wi-Fi and Bluetooth in ham shack.

The following systems were still affected by HF EMI after modifications were made:

1) Samsung SyncMaster T260 PC monitor with touch power ON switch in hamshack

2) Electronic dimmer in IKEA metal floor lamp also in hamshack

Both of the above items have to be unplugged when transmitting.

RESOURCES

eHam.net and contesting.com/archives have excellent sections on EMI.

A Google search for CO sensors will also give you lots of information.

http://www.marcspages.co.uk/pq/3270.htm Power supply noise.

. . . .

DO YOU HAVE QUESTIONS ABOUT EXAMINATIONS, CALL SIGNS?

Industry Canada
Amateur Radio Service Centre

PO Box 9654, Postal Station "T",

Ottawa, ON, K1G 6K9
<spectrum.amateur@ic.gc.ca>
1-888-780-3333 (Toll free)

Fax: 1-613-991-5575

PRESENTATION OF THE 2012 RAC HALL OF FAME AWARD

The RAC Hall of Fame Award was formally presented to recipient, Bob Nash, VE3KZ, at the annual Contest Club Ontario mid-winter luncheon in Oakville, Ontario on February 2, 2013.

Pictured in the top photo are Marlene Nash, Bob Nash, VE3KZ and Tom Nash, VE3MFT, in the foreground and members of Contest Club Ontario in the background.

Shown in the above photo are Dave Dudley, VE3OI, Vice-President Contest Club Ontario, Bob Nash, VE3KZ and Stan Leschinsky, VE3TW, RAC Assistant Director for the Ontario South Region.

Photos courtesy of Peter West, VE3HG.

ABOUT THE AUTHOR

In grade school Mike was introduced to Amateur Radio by Bill Wragg, VE3BQP, then school Principal. After that everything electrical became interesting and an E. Eng. career followed.

He graduated from the University of Waterloo in 1974 with a BASc. in Electrical Engineering and worked over 30 years as an Engineer, senior manager and consultant for many of Canada's top companies.

At the age of 66, Mike is currently retried and resides in Oakville, Ontario.

Happily married to wife Irene for over 42 years. They have three adult children and four grandchildren keeping them both very busy. Both son's have their Advanced licences.

When the job jar gets near empty, he enjoys gardening, golf, oil painting, wood and metal working, redesigning small CNC machinery and experimenting with alternate energy projects. Oh yes, Amateur Radio when he gets a chance.

GETTING STARTED ON THE AMATEUR RADIO SATELLITES

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The bulk of this article was previously published as "Working Your First Amateur Radio Satellite (Part IV)" in the August 2010 issue of Monitoring Times, Brasstown, NC 28902. Thank you MT!

As I've said in previous columns, while handheld radios and antennas are great for "hit or miss" satellite contacts, if you are really serious about satellite work, eventually you'll want something more permanent for your home station.

In this installment of our "getting started" series, I'll offer a quick review of some satellite-capable radios currently on both the new and used market. My goal is to offer some issues to consider when shopping for a "satellite friendly" radio so as to get you on the birds from home without also breaking the family budget!

Over the years, several Amateur Radio manufacturers have offered base station radios specifically equipped to work the satellites. This equipment usually offers all-mode VHF/UHF capability and can also transmit and receive in "full duplex" mode, meaning the radio has the ability to transmit signals on one band and simultaneously receive them on another. While not absolutely necessary, this feature makes it much easier to know if your signal is actually getting into (and through) the "bird". It also helps you tune your radio to compensate for Doppler shift as the satellite whizzes overhead.

WHERE DO I START?

A good place to start your search for a satellite capable, full duplex radio is with an Internet list that's been painstakingly complied by Kevin Herron, W4KWH at: <http://w4kwh.org/satellite-radios/>.

As you can see from his list, even though there are only a handful of new, full duplex radios on the market today, many older (but still perfectly functional) satellite-capable radios can still be found on the used market. With Kevin's list in hand, some time spent scouring the various Amateur Radio bulletin boards that offer used equipment (such as www.qrz.com or www.eham.net) may pay off in a somewhat older, but still perfectly functioning satellite radio at a fraction of the cost of a new one.

SEPARATE OR "ALL IN ONE"?

Certainly, while a single, "all in one", full duplex base station radio is nice to have, for many years I very successfully operated on the satellites using two separate radios. One was an all-mode VHF radio (a Kenwood TS-711A) and the other was an all-mode UHF radio (its 70 cm companion, the Kenwood TS-811A). And while I had to manually tune each of them to keep up with "Dr. Doppler", this setup still provided me with many hours of solid satellite radio time.

NEW OR USED?

As you can see from Kevin's list, there are still a number of radios available on the used (I call it the "experienced") radio market that, if you can find one, will also offer many hours of enjoyment working the satellites.

One of those radios is Yaesu's FT-847. When it was first introduced back in the mid-1990s, it changed base operation forever. In essence, when you purchased an FT-847, you got three radios in one – an all-mode HF, VHF/UHF radio and a satellite radio in a single "box". The radio produced 100 watts output on HF and 6 metres, plus 50 watts on both 2 metres and 430 MHz bands. Additional features included cross-band (so-called "full duplex" operation, along with normal/reverse tracking, CTCSS/DCS encode and decode, 0.1 Hz tuning steps, DSP Notch, DSP noise reduction and a DSP filter. The FT-847 was also 1200/9600 bps Packet ready and came with an MH-31b handheld microphone.

For about 10 years now, I've owned a late model FT-847 that I bought used from an Amateur that had taken very good care of it. Needless to say, it remains an essential part of my home station even today. Fortunately '847s can still be found for sale on the used market. However, because it was such a groundbreaking satellite radio to begin with, they've managed to hold their value through the years. Even on the used market, they are still commanding well over $1,000 these days.

Another satellite-capable radio you might look for on the used market is the Yaesu FT-736. As the older brother to the '847 (minus its HF capability), it (along with the ICOM 970H and Kenwood 790A) was a very popular all-mode, VHF/UHF satellite radio used by many satellite ops throughout the 1990s.

Here's another tip: If a full duplex, all-in-one "box" (even a used one) is beyond your means, you can still adapt a number of the all-mode VHF/UHF-capable base or mobile radios now on the new (or used) market for satellite work. For example, many satellite operators have very successfully adapted a pair of all-mode Yaesu FT-817 (so-called QRP) radios (or their more powerful cousins, FT-857s) for both FM and analog satellite work – one radio for the VHF/UHF uplink and one radio for the VHF/UHF downlink.

Fortunately, as I've noted, all of these radios occasionally appear for sale on the more popular trading websites such as QRZ.com (and even eBay). However, when buying any used electronic equipment sight unseen, a good rule of thumb to remember is "buyer beware". That is, if the price on a particular piece of used radio equipment sounds too good to be true, it probably is!

NEW RADIOS

Unfortunately, fewer and fewer newly manufactured Amateur radios these days have the capability to operate in full duplex mode on VHF and UHF. But, fortunately, there are still a few of them on the market with (hopefully) more to follow.

THE ALINCO DJ-G7T/E

Alinco's DJ-G7T/E is one such radio suitable for handheld satellite operation on our FM "birds". Besides being able to operate in full duplex mode on the 144 MHz, 430 MHz and 1200 MHz bands, it sports a 5W transmitter, 50 pair of programmable scan memories and a host of other "bells and whistles" of interest to the Amateur satellite user.

KENWOOD'S VENERABLE TS-2000

As of this writing (early January 2013) there were only two base station Amateur transceivers on the new equipment market that also enabled full duplex satellite work. One of those was the Kenwood TS-2000.

Lately, thanks to Kenwood factory incentives, the radio can be purchased for substantially less than its current suggested retail price. It offers the beginning satellite user a superb value in a "do everything" rig. This HF/VHF/UHF all mode radio sports a 100W transmitter for HF through 2m (50W on 70cm), dual channel receive, digital signal processing (DSP), a 16-bit processor, built in TCXO for superb frequency stability, as well as a built in auto antenna tuner for 160 through 6 metres.

For satellite work, the TS-2000 uses 10 dedicated memory channels with the ability to synchronize the transceiver between either normal or reverse tracking of uplinks (transmitting) and downlink (receiving) frequencies.

ICOM'S IC-9100

Like Yaesu and Kenwood, ICOM has been another strong supporter of the Amateur satellite community over the years. Lately, they too have been filling a "high end" niche with some outstanding satellite equipment.

The bad news is that they recently discontinued sale of their very popular IC-910H VHF/UHF all mode base radio.

AMSAT's Keith Pugh, W5IU, uses a pair of Yaesu FT-817 QRP rigs (one for the uplink and one for the downlink) for his Dayton Hamvention satellite demonstration station. (Courtesy: VA3KSF)

The good news is that they have replaced the '910 with what promises to be an even more robust, "all in one box" satellite radio with their new IC-9100.

The '9100 delivers a solid 100W on all bands and all modes HF through 2m, and 75W on UHF.

It simultaneously receives on two different bands and operates as if there are two different receivers in one radio.

The radio also sports 32-bit DSP and offers ICOM's increasingly popular D-Star, digital communications capability to boot.

In the satellite mode, the '9100 synchronizes uplink and downlink frequencies via 20 satellite memory channels that allow for storing operating modes and tone settings as well as other satellite-unique parameters.

DISCLAIMER

Now, none of this discussion is intended to provide a personal (or "official") endorsement by me (or RAC) for any particular manufacturer's radio.

Just like those seemingly endless arguments about Ford versus Chevy automobiles, each of us has our own personal preferences about a particular manufacturer's radio equipment.

The bottom line here is that you must still do your homework to learn which features each satellite-capable radio offers and how they all compare with what you can reasonably afford. That activity has always been an essential part of our Amateur Radio hobby, and shopping for radio equipment to work the birds is no exception.

LOOKING AHEAD

I trust this quick primer on buying satellite-capable radios has also been helpful in getting you started working the birds. In future columns, I'll be shining the spotlight on some of the other satellites in our Amateur Radio satellite "fleet".

See you then!

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Note: Please see page 35 for more information on the RAC Maple Leaf Operator program.

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We wish to welcome the following new members of Radio Amateurs of Canada for December and January.
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New pricing structure effective January 1, 2013:

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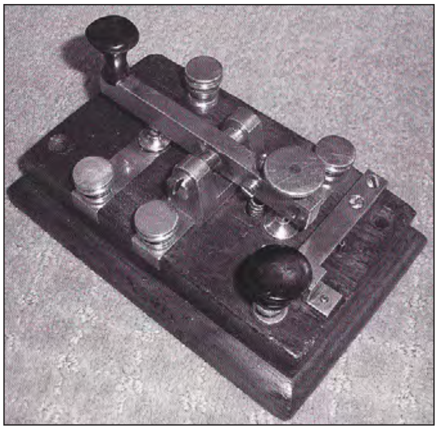
TWO KEYS



There is no CW column in TCA so someone has to fill in the gap, right?

Here are a couple of beautiful (not only to the Morse Code *aficionado*, but to anyone that appreciates lovely machining) and “different” telegraph keys, featured in ZL1AN’s “Morseman” column in *Break-In* magazine.

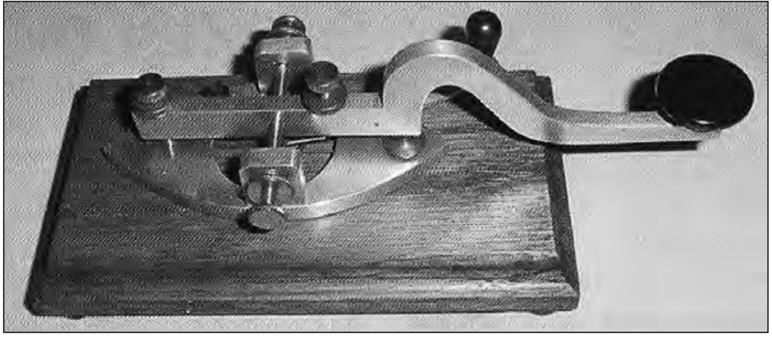
The Breguet key is in VK2IXV’s collection. It was made about 1850 in France. It is unusual in that it incorporates a small key used to tell a messenger boy that incoming telegrams were ready for pickup. The key is on a mahogany base and bears the number 80877.

Fons Van den Berghen, in Halle, Belgium, a Breguet expert with a large collection of keys and scientific instruments, says there are only a few Breguet keys still in existence.

Maison Breguet was founded in 1775. In 1833, his grandson Louis became Director of the company, developing and manufacturing timepieces, telegraph keys, electric-magnetic telegraphs, telescopes, chronometers, lightning arrestors and other scientific instruments. In 1870, he decided to concentrate on telecommunications apparatus so he sold the watchmaking business to his factory manager. Breguet watches are still in production.

“Camelback” keys began to appear in the late 1840s. You can see a collection of them at <http://w1tp.com/im1000a.htm>.

The Phelps model illustrated below was produced around 1860. No one claims to know just why the “camelhump” shape was adopted.



There is no reason in physics to support the idea that this eccentric shape affects the operating “feel”.

W2NI says that Phelps was a machinist, not a telegrapher, and was probably influenced more by artistic considerations.

ZL1AN agrees with this opinion, and says they were probably made that way just because they “looked good”.

The little knob on this key is on a switch that just short circuits the operating key to facilitate “keydown”.

SPOT WELDING BATTERIES

VE7MID says:

“I have used the Vishay 700 to spot weld strain gauges which would be very similar to your welding of contact strips to batteries.

There is nothing very ‘High-tech’ to this instrument (it just charges a capacitor and dumps it through an electrode (Ti?)) and if you do a Google Search on ‘strain gauge spot welder’ you will find a couple of others including a homemade one.”

TYPE F DOUBLE-FEMALE COUPLERS

In an online discussion about Type F couplers, W8JI said:

“All of the connectors we used, and I’m sure this applied throughout the industry, had tin contacts. The last thing we would use was gold, because gold would aggravate something we called ‘fretting corrosion’ in contact with copper clad steel, tinned, or CCA cables. Tin plating was excellent under dry circuit conditions, like CATV drop feeds, where no significant current flowed through the contact.

Tin plated contacts had to be protected from oxidation by a grease. The grease also allows the connectors to be reused over and over without ruining the tin. We found a 100% pure silicon dielectric grease best. We used a product by GE back then, and I use something called automotive ‘tune up’ grease now. It looks and smells identical. Outside of lightning I have no problems with hundreds of F connections in my system.

ALL connectors I have taken apart over the past 40 years have had spring contacts. This includes trunk cable connectors. The spring is a two-piece deal that is sort of double V shaped from the side with one long leg. The wire pushes the V points apart. A good connection requires a pretty good spring force. If you insert a piece of dry centre conductor in the contact, you should be able to feel the female grabbing the wire. It can’t feel like a zero insertion force connection, or you will have problems.

I would never use gold unless it was against gold. Tin is good for tin to tin, tin to silver, and tin to copper. I know of CATV systems that installed gold plated connectors and had to go out and remove them. I think Comcast got into that once. Besides that, some gold connectors are not even real gold. They are just gold colored ‘crap’.

My suggestion is to ask advice from and use what the CATV industry uses and has used for years. I know everyone thinks gold is magic, but it can be a real headache even in cases where it really is gold.

The most important thing in any connection is to NOT let a stray strand get loose and short the connector, to prep the ends properly including folding or not folding the shield as required by the cable and connector, and to lube the connector with something to keep air and moisture out.”

HUNTING POWER LINE NOISE

N1BUG is chairman of the RFI committee on the Piscataquis Amateur Radio Club. He said, on the *Topband Reflector*:

“I was dealing with a mix of 13.2 kV distribution lines and 46 kV transmission lines. My hunt was made more challenging by the fact I had multiple sources in a relatively small area and could often hear more than one at a time even with directional antennas and attenuation.

My tools this summer were a 135 MHz AM receiver with 3 element yagi and step attenuator; LF/MF/HF/VHF/UHF AM receiver with DF loops for low bands and a 7 element yagi for 445 MHz; ultrasonic receiver with dish. Low frequencies, e.g., AM BC or 160 meters were occasionally useful in locating a general source area. Sometimes the area identified turned out to be an area of radiation but the noise was generated elsewhere.

Often the relatively close proximity of multiple sources made low frequency tracking useless. VHF was always useful in finding a source area, 80% of the time resolving it to a single pole. The sharp, deep null at exactly 90 degrees off axis of the yagi proved very useful for confirming a source structure. Poor resolution/accuracy of signal strength metering was perceived as a problem. UHF was very helpful in a few areas where the noise was particularly strong at VHF and/or signal strength was so close over a span of several poles that VHF could not pick the source pole with high confidence.

So far, experience indicates this is more likely to happen on the transmission lines. They're a bear. Again, poor or no signal strength metering (signal below AGC threshold) was perceived as a problem. The first ultrasonic unit tried was a waste, finding something at only 10% of RF noisy poles. The second unit was able to hear something from about 60% of the same 21 poles. The figures are averages over more than 10 runs with each unit. The two were also tested on a spark signal range under somewhat controlled conditions.

These things are definitely not created equal! If I were doing this strictly for myself these tools would be more than adequate. Since I'm not and I only have so many hours in a day I have several upgrades on my wish list: HF/VHF/UHF AM receiver with wider bandwidth better signal strength metering Log periodic dipole array covering ~100 to ~900 MHz for frequency agility while maintaining some directional properties Portable oscilloscope for observing noise signatures in the field (I'm hoping it helps sort out overlapping source radiations) Yet another upgrade of the ultrasonic unit."

2013 ARRL HANDBOOK

The 90th edition of *The ARRL Handbook* is a massive RF engineering reference, drawing from international sources including the Radio Society of Great Britain (RSGB).

The included CD has additional material associated with referenced QST articles. It also has updates to the popular ELSIE filter design software, and supplements to many of the articles in the *Handbook* itself.

There is a major upgrade to W4ENE's Pi-El Circuit Design software and the yearly update by W1ZR of transceiver models and specs, and a Tube Calculator Windows app supplementing the RF Power Amplifiers chapter. The CD becomes a more and more essential addition to the printed book.

There are some articles carried over from previous editions of the *Handbook*, but many new articles, particularly on antennas, HF, VHF and UHF. There is an update by George Dobbs, G3RJV, on the W1FB "Pebble Crusher" QRP CW transmitter, and an update by K9LA on the propagation chapter and a forecast of the probable evolution of Cycle 24.

A comprehensive index of course, and separate tables of content for each of the 29 chapters. US$59.95 ARRL #4197 for the hardcover edition.

ANTENNA MODELING FOR BEGINNERS

Ward Silver, N0AX, has provided in *Antenna Modeling for Beginners* a complete tutorial on the topic, based on W7EL's EZNEC modeling program and material from L.B. Cebik W4RNL (SK), Joel Hallas W1ZR and *The ARRL Antenna Book*.

The 10 chapters cover everything from the reasons modeling is worthwhile, through basic operation of EZNEC, patterns and tables, building, developing, modifying and testing models. Appendices cover X-Y-Z angle coordinates, the use of Decibels and useful quizzes on the content of the chapters. The website <www.arrl.org/antenna-modeling-for-beginners> contains yet more resources.

US$38.95 ARRL #3961; soft plasticized cover.

THE CARE AND FEEDING OF TRANSMISSION LINES

The transmission line, connecting your antenna to your rig, is an important part of your antenna system. Joel Hallas, W1ZR, starts from the absolute fundamentals of the subject, and in nine chapters covers the various types of balanced and unbalanced lines, connectors (type BNC, RCA, F, N, UHF, standard and crimp) and their installation, and the factors that go into determining which line is best suited for particular applications.

Included in *The Care and Feeding of Transmission Lines* are tips on practical things like drilling holes in walls, installing drip loops, making window entrances, direct burial of coax, grounding and lightning protection.

US$27.95 ARRL #4784;
soft plasticized cover.

TCA

HELP WANTED

Deputy Director

The position of Deputy Director was approved by the membership at the Halifax AGM in 2010 and subsequently approved by the federal government in February 2011.

The Deputy Director position provides for continuity of organization and greater access by members.

The Deputy differs form the position of Assistant Director in that the incumbent fullfills the duties of Director when the Director is not available and serves as an observer at Board meetings.

Please express your interest to the RAC President Geoff Bawden, VE4BAW, at <ve9glf@nbnet.nb.ca>.

RAC Public Information Officer

The Radio Amateurs of Canada is seeking the services of a Public Information Officer (PIO).

This is a voluntary position operating at the national level. Candidates with the following knowledge, skills and abilities will be considered:

- Knowledge of the principles and methods of planning and conducting a public information program.
- Knowledge of the media used in public relations.
- Ability to plan and conduct a public information program.
- Ability to write and edit various forms of promotional and informational material and to develop and/or select other types of media such as films and exhibits.
- Ability to discern and collect newsworthy materials, to analyze and evaluate public relations media and methods, and to judge probable public reaction.
- Ability to speak effectively in public.
- Ability to work effectively with RAC Affiliated Clubs and the RAC national Bulletin Service.

Linda Friars, VE9GLF
RAC Acting Corporate Secretary
ve9glf@nbnet.nb.ca

All Things Digital

Amateur Radio for the 21st Century

007

Robert C. Mazur, VA3ROM
E: va3rom@gmail.com
W: http://my.tbaytel.net/va3rom

ABOUT THE WINLINK 2000 GLOBAL RADIO EMAIL SYSTEM

Portions of this article have appeared in various APRS Thunder Bay articles that I've written: "WL2K and You"; "APRS Messaging and Email"; "WL2K Radio Email", and "Email, APRS and WL2K". Very special thanks for additional material, proofing and critiques provided by Michael Moreau, VA3LKI, who runs a "big gun" multimode/frequency Winlink 2000 station, and Jon Perelstein, WB2RYV, who has written and given excellent presentations on VHF Packet Radio, and WL2K and WINMOR for EMCOMM (Emergency Communications).

Detailed information is provided in the References and Resources section at the end of this column. That material should explain the (Amateur Radio) Winlink 2000 (WL2K) Global Radio Email System from A to Z. This article puts my "spin" on using some of the lesser known or perhaps "obsolete" (to some, except for one) methods of exchanging messages using the system.

Would you like to be able to send and receive messages from almost anywhere in the world when commercial services aren't available? Thanks to Amateur Radio you can! Amateurs and other agencies, groups and organizations volunteer their services, expertise and equipment to set up, maintain and use what are called RMS (Radio Message Server) Gateways (or Nodes) on VHF/UHF and HF radio (and various other ways and means). These are connected to CMS (Common Message Servers) and the Internet.

The digital radio modes supported are: VHF/UHF packet radio (soundcard or hardware); HF WINMOR protocol via soundcard and HF Robust Packet and PACTOR (using proprietary hardware).

A lesser known feature is the use of the commercial GPRS (General Packet Radio Service). Cellular systems have dedicated GPRS channels that can function even when the voice channels are jammed or lost (as usually happens in major disasters).

The WL2K system shown in Figure 1 has free Windows (XP or later) specific software (Paclink, Airmail and RMS Express), but only one (Paclink) directly supports VHF soundcard packet radio (using the AGW Packet Engine program), especially the newer USB-over-audio external soundcards. If you use the Apple or Linux operating systems or a pre-XP computer, this can be problematic.

Note: *The WL2K system is very similar to APRS (Automated Packet Reporting System), and the APRS-IS (APRS Internet Service). Please refer to my three TCA APRS articles (2012) for more information on APRS and packet radio.*

WL2K AND I

My overall preference is soundcard APRS and packet radio messaging (using UIVIEW, WinPack and AGW since I use Windows XP) along with an HT and all-mode VHF/UHF/HF mobile (see Figure 2). This reduces the number of other programs and hardware that I need to lug around, keep current and remember how to use! Sometimes you get so "updated to death" that the supposedly "old" and "obsolete" technology is more appealing, especially when it still works! Since the VHF RMS Packet Gateways behave just like the "old school" 1980s packet radio mailboxes and BBS (Bulletin Board Systems), they really don't "care" how you access them. Sure, I may lose the ability to send/receive multi-address emails and (small) attachments (that require the WL2K specific software), but texting is usually all people really need –most of the time – especially in an emergency!

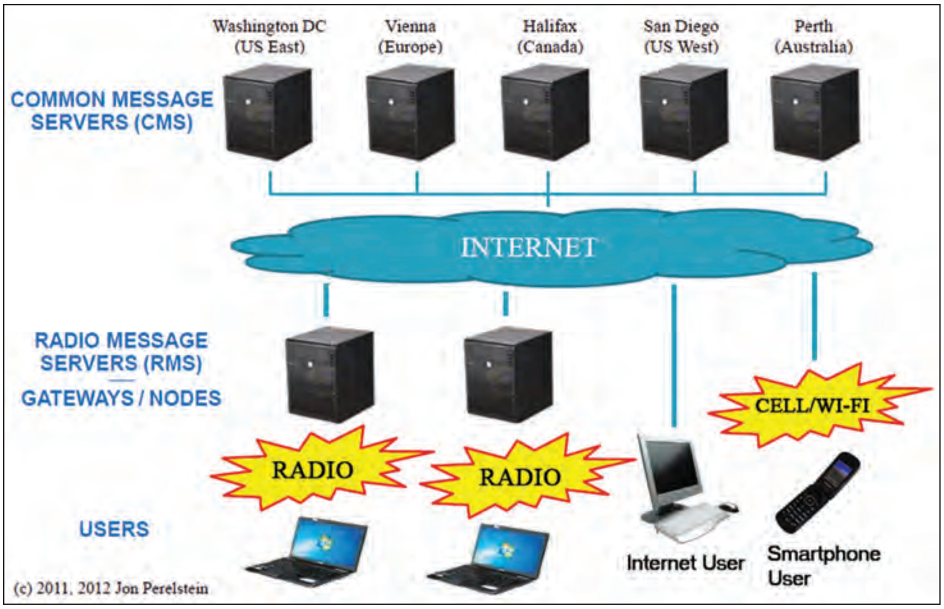


Figure 1: WL2K Overview

This is the pictorial layout of the WL2K system. If the Internet component is lost to the CMS, an RMS (VHF or HF) can act as stand-alone packet radio "mailbox". Diagram courtesy of Jon Perelstein, WB2RYV, and used with permission. Additional Smartphone User graphic added, with permission, by Robert, VA3ROM.

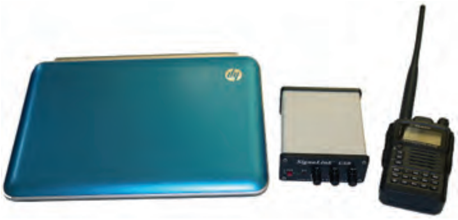


Figure 2: Basic VHF Packet Radio WL2K Equipment

A basic and portable VHF radio email messaging setup is fairly straightforward. A laptop or netbook, SignaLink USB soundcard/radio interface (or Buxcomm, Donner, KH6TY, et al) and a VHF HT (interconnecting cables not shown) is all you need to get started! A roll-up J-pole antenna is handy when you need more "reach" (a small, portable 2- or 3-element VHF beam is an option). If you have a VHF/UHF/HF transceiver that's another option, but there's the added weight and power requirements to consider unless it's already installed in a vehicle.

Note: *There are APRS and packet radio programs available for those who use other operating systems (Apple and Linux primarily and Android and iOS devices secondarily). These programs may not all be free but they will allow you to interface with the WL2K radio email system using my "old school" methods.*

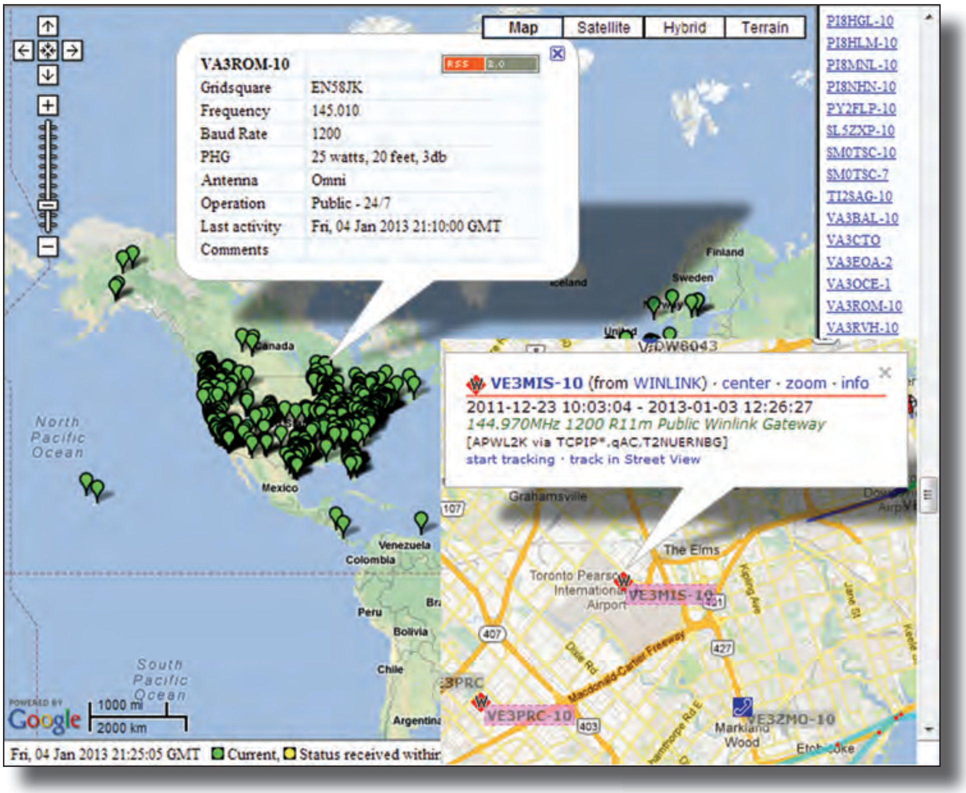
Today, more Amateurs are using soundcards for digital radio modes eliminating multi-mode TNCs (Terminal Node Controllers). If you are a digitally enabled Amateur, you already have everything required. One of the major benefits of the digital soundcard radio modes is that if you can do one, you can do almost all! While only Amateurs and other supported agencies, groups and organizations can have WL2K accounts (callsign@winlink.org), third party traffic rules apply. If you initiate the contact, other non-WL2K parties can reply back as they are using Internet or cellular services. Obviously, you can't use it for commercial or frivolous purposes! The system is primarily intended for EmComm or as an alternate method when conventional services aren't available.

An example: My campground is just within VHF range of Thunder Bay using 20 watts and a small beam. There's no electricity, landlines, Wi-Fi, running water, etc. Amateur Radio (using battery or solar power) is the only way to communicate with the outside world. If a family member needs to contact me, they just send an email to my regular Tbaytel account. My Outlook email client runs a forwarding routine that "looks" for specific email addresses and words and then forwards those to my WL2K account. I access it several times a day (using radio only) and I can send replies. Now, you don't use this technique to start a long and drawn out, back and forth texting contest; it's for important things like: "Forgot my meds, can you bring them up?" or "Dad's in the hospital, come home now!"

Note: *In the following examples anything that APRS can do with APRSLink, a packet radio terminal program (connected to an RMS) can do and vice versa. There may be slight variations in command syntax. Also, commands are case insensitive so "Help", "HELP" and "help" are all the same to the system.*

A. APRSLINK AND WL2K

In Canada (any many other parts of the world) RMS Packet Gateways (Figure 3) aren't as numerous as in the US, but there is a very extensive APRS network and the WL2K system (Figure 4) supports it with the APRSLink component. If you use APRS, you already know how to send SMS (Short Message Service) type emails (using the EMAIL-2 server, for example).



VA3ROM-10

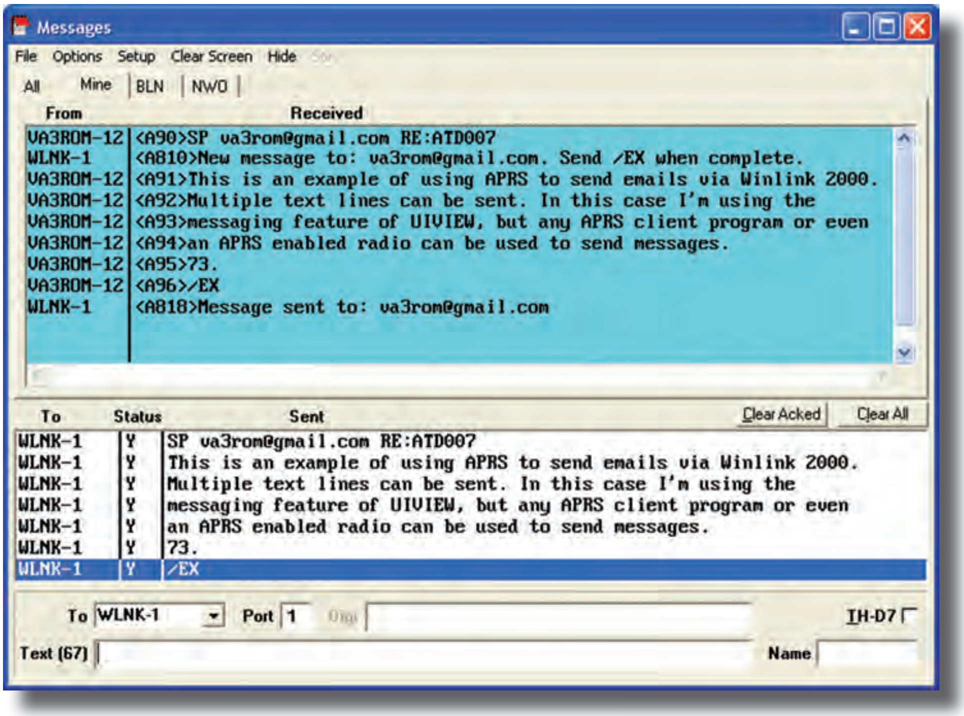
Gridsquare	EN58JK
Frequency	145.010
Baud Rate	1200
PHG	25 watts, 20 feet, 3db
Antenna	Omni
Operation	Public - 24/7
Last activity	Fri, 04 Jan 2013 21:10:00 GMT
Comments	

VE3MIS-10 (from WINLINK) · center · zoom · info
2011-12-23 10:03:04 - 2013-01-03 12:26:27
144.970MHz 1200 R11m Public Winlink Gateway
[APWL2K via TCPIP*,qAC,T2NUERNBG]
start tracking · track in Street View

Fri, 04 Jan 2013 21:25:05 GMT ■ Current, ■ Status received within

Figure 3: RMS Packet Gateways Maps

A composite image of APRS.FI (Toronto area) and WL2K world map of the (VHF/UHF) RMS Packet Gateways. Whenever possible, they use packet radio SSID-10 (Secondary Station Identification). The important information is frequency, data rate and type. The three types are: PUBLIC, PRIVATE or EMCOMM. ***Note:*** *PHG refers to the station's antenna Power, Height and Gain figures.*



```
From          Received
VA3ROM-12 <A90>SP va3rom@gmail.com RE:ATD007
WLNK-1    <A810>New message to: va3rom@gmail.com. Send /EX when complete.
VA3ROM-12 <A91>This is an example of using APRS to send emails via Winlink 2000.
VA3ROM-12 <A92>Multiple text lines can be sent. In this case I'm using the
VA3ROM-12 <A93>messaging feature of UIVIEW, but any APRS client program or even
VA3ROM-12 <A94>an APRS enabled radio can be used to send messages.
VA3ROM-12 <A95>73.
VA3ROM-12 <A96>/EX
WLNK-1    <A818>Message sent to: va3rom@gmail.com
```

```
To       Status  Sent
WLNK-1   Y       SP va3rom@gmail.com RE:ATD007
WLNK-1   Y       This is an example of using APRS to send emails via Winlink 2000.
WLNK-1   Y       Multiple text lines can be sent. In this case I'm using the
WLNK-1   Y       messaging feature of UIVIEW, but any APRS client program or even
WLNK-1   Y       an APRS enabled radio can be used to send messages.
WLNK-1   Y       73.
WLNK-1   Y       /EX
```

To WLNK-1 Port 1
Text (67)

Figure 4: APRSLink and WL2K

A multiline text is being entered and sent to my Gmail account (you can send messages to any valid email address). In the case of APRSLink, one of the CMS will be involved with the APRS system to handle things. Your radio signal may be automatically digipeated to reach an APRS IGATE (Internet Gateway) station and then to a CMS.

APRSLink allows you to send/receive multi-line text emails to/from address WLNK-1 using the SP message command and will automatically add (see Figure 5) the station's APRS information.

***Note**: You have no control as to how the routing is done with a totally automatic system like APRS. Sometimes the older and more direct packet radio method (see Figure 6) can work much better, depending upon the situation.*

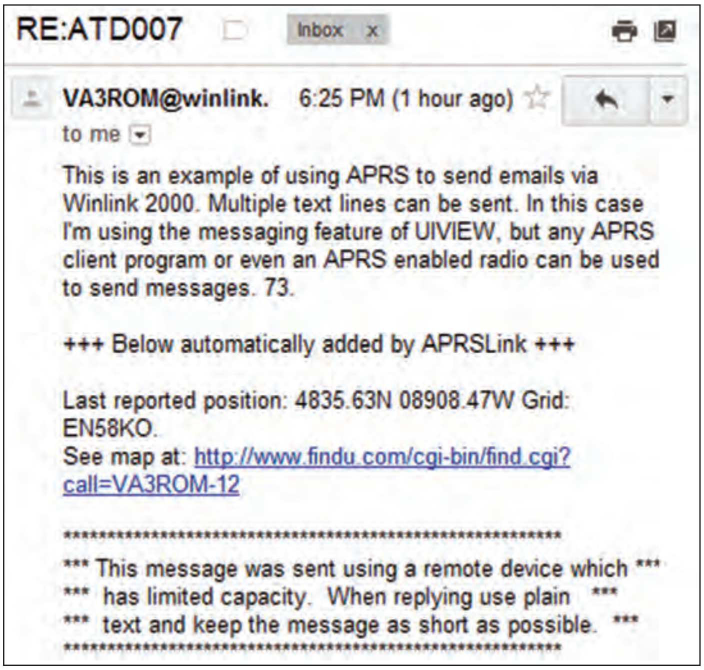
You can also query the WL2K system and obtain other information: Asking if there are messages waiting for you; the closest RMS Packet Gateway(s) in your area and distance/bearing to them or for help on using APRSLink commands, etc. The system is self-prompting so if you enter something that "doesn't compute" it usually prompts you with the correct format. If all else fails, you just send "HELP" to WLNK-1 and all available commands are explained.

***Note:** Some ARES groups are starting to piggyback RMS Packet Gateways on their well-established local APRS area using 144.390 MHz as the common frequency for both systems. Packet radio has certain built-in features so that it can support multi-station use on a single frequency and not get "confused" with who is "talking" to whom (for the most part).*

B. PACKET RADIO PROGRAMS AND WL2K

In the following examples (Figures 6 and 7), WinPack is used (but any packet radio terminal program will work) to send an SMS to my Smartphone (telephone number masked).

Of course, a WL2K or other valid email address can be used. WinPack won't run on 64-bit systems (it's a 16-bit app), but you can use the newer (free) Paxon terminal program as a replacement. Paxon supports both AGW PE and UZ7HO SCM (Sound Card Modem) middle-ware programs.



VA3ROM@winlink. 6:25 PM (1 hour ago)
to me

This is an example of using APRS to send emails via Winlink 2000. Multiple text lines can be sent. In this case I'm using the messaging feature of UIVIEW, but any APRS client program or even an APRS enabled radio can be used to send messages. 73.

+++ Below automatically added by APRSLink +++

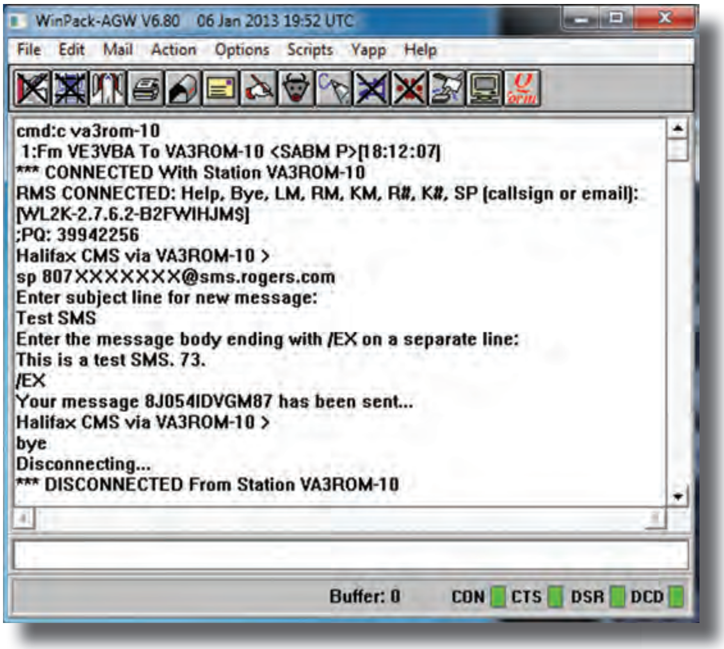
Last reported position: 4835.63N 08908.47W Grid: EN58KO.
See map at: http://www.findu.com/cgi-bin/find.cgi?call=VA3ROM-12

```
************************************************************
*** This message was sent using a remote device which ***
***  has limited capacity.  When replying use plain   ***
***  text and keep the message as short as possible.  ***
************************************************************
```

Figure 5: Email Received via APRSLink

This is message retrieved from my Gmail account. Since it was sent from an APRS station, the last known APRS POSIT (Position) and other information is added to the text.

***Note:** When replying back, keep it short and concise; delete all the extraneous text.*

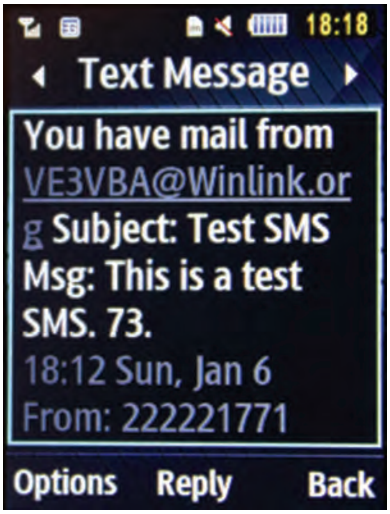


```
cmd:c va3rom-10
 1:Fm VE3VBA To VA3ROM-10 <SABM P>[18:12:07]
*** CONNECTED With Station VA3ROM-10
RMS CONNECTED: Help, Bye, LM, RM, KM, R#, K#, SP (callsign or email):
[WL2K-2.7.6.2-B2FWIHJM$]
;PQ: 39942256
Halifax CMS via VA3ROM-10 >
sp 807XXXXXXX@sms.rogers.com
Enter subject line for new message:
Test SMS
Enter the message body ending with /EX on a separate line:
This is a test SMS. 73.
/EX
Your message 8J054IDVGM87 has been sent...
Halifax CMS via VA3ROM-10 >
bye
Disconnecting...
*** DISCONNECTED From Station VA3ROM-10
```

Figure 6: Packet Radio Programs and WL2K

In the above example I'm sending an SMS to my Smartphone. The subtle difference between this method and using APRSLink is that you must establish a connection to the RMS Packet Gateway station (either direct or via digipeater) to reach a CMS. One of the six will connect (if Internet service is available) else the RMS will store messages for forwarding when the service is available.

C. SMARTPHONES AND WL2K



You have mail from VE3VBA@Winlink.org Subject: Test SMS Msg: This is a test SMS. 73.
18:12 Sun, Jan 6
From: 222221771

Figure 7: Smartphones and WL2K

Here's an SMS received and displayed that came through the WL2K system.

In this case, it can't be via APRSLink since there is no additional APRS information.

I can press "Reply" and send a short message back to the originator as it's all transparent and automatic.

Only another Amateur would know that @winlink.org was the domain name of the WL2K system!

Rogers' smartphones use 10-digit number@pcs.rogers.com (@sms.rogers.ca and @sms.fido.ca also work) for a "cell mail" address.

Since most people use their smartphones for everything – 24/7 and take them everywhere (even to bed!) – it's often best to send very important message directly to their smartphones.

***Note:** For example, when conducting an ARES phone tree callout, why bother dialing each member's phone number and passing a voice message?*

Why not send one SMS batch email addressed to everyone's smartphones? You may only have a few minutes to get the word out before the commercial system comes crashing down and you are cut off!

MY FINAL

Well, that's enough! Perhaps some of the old packet radio "Packratts" out there will have their interest piqued and give 21st century packet radio messaging a try! Then, you may want to dive deeper into the pool and look at the dedicated WL2K software. I recommend RMS Express as it supports HF soundcard radio using the WINMOR protocol, albeit you'll need a TNC for VHF packet radio (no plans for adding VHF soundcard support, sigh).

In my next column, we'll look at something that I used daily in my old job with the Canadian coast guard called AIS (Automatic Information System). It's basically "high speed APRS for ships". Many Amateurs receive and send AIS data into dedicated Internet servers for others to enjoy! – 73.

REFERENCES AND RESOURCES

Winlink 2000 <www.winlink.org>

Getting Started<www.winlink.org/GetStarted>

User Software <www.winlink.org/ClientSoftware>

RMS Packet Gateways Map <www.winlink.org/RMSPacketPositions>

APRSLink <www.winlink.org/aprslink>

WL2K Training Course <http://tinyurl.com/aaruqby>

RMS Station VA3LKI/VE3LKI <www.qsl.net/ve3lki/RMS/index.html>

WinPack (download v6.80) <http://nl3asd.tripod.com/winpack.html>

WinPack Registration (free) <www.apritch.myby.co.uk/uiv32_winpack.php?lang=english>

Paxon Terminal Program <www.paxon.de/download.html> (especially for 64-bit systems)

AGW Packet Engine <www.sv2agw.com/downloads/default.htm>

UZ7HO Sound Card Modem <http://uz7ho.org.ua/packetradio.htm> (not with WinPack)

Soundcard Packet Radio <www.soundcardpacket.com/index.html>

APRS Email System <www.aprs-is.net/Email.aspx>

Short Message Service <http://en.wikipedia.org/wiki/SMS>

Sending Free SMS <www.textcanada.ca>

GPRS <http://en.wikipedia.org/wiki/General_Packet_Radio_Service>

Smartphones <http://en.wikipedia.org/wiki/Smartphone>

SMS Gateways <http://tinyurl.com/a65a8ok>

WL2K Questions & Answers <http://home.earthlink.net/~k7bfl/WL2K_FAQ.pdf>

Winlink 2000: An Update <www.tapr.org/pdf/DCC2008-Winlink2000-W5SSM.pdf>

VHF and Packet Radio with a Focus on EMCOMM

<http://tinyurl.com/b592mj7>

WL2K and WINMOR Radio-Based E-Mail

<http://tinyurl.com/b34d8co>

Note: *Both of the above documents are written by Jon Perelstein, WB2RYV, who has kindly allowed me to host them on my website.*

SO MANY QSL CARDS: SO LITTLE WALL SPACE

Gary Skett, VE7AS

There comes a point when you run out of wall space to display all your favourite QSL cards. After 43 years collecting cards, the last three years printing out my special e-cards for display, my meagre ham shack was full – not a square millimetre of wall space left. So what is a Ham to do?

While doing my Christmas shopping with my wonderful wife (Theresa, VA7TDS) I was explaining my dilemma – and she came up with the solution just like that! Why not scan them all onto an SD card and use a small digital photo-frame to display them? It was a brilliant idea so I detoured to the photo department and purchased the smallest frame they sold. It was for a 4 x 6 format print, which is just about perfect for the average 3 ½ x 5 inch QSL card and it cost only $36.

It took me about two days to go through all my favourite cards, scan them in, crop them to size, and enhance the colours of the older cards. For my e-QSL cards, all I had to do was log into my account and display the ones I wanted to show off and download them directly onto the SD card – they were already the perfect size and resolution. A few hours later and I had a few thousand cards in my QSL folder. A few seconds later they were all in alphabetical order (I had saved them using the call sign as the file name) and on the frame's SD card. I had a spare 16 GB card, which I barely made a dent in.

Each QSL card took an average of 158 kB – some less, some more. Calculating what I used by the average storage space taken, I estimated I could get about 101,000 cards on a 16 GB SD card! About 6,300 per gigabyte of storage. Ok, so I won't ever fill it up with cards, but I did add some shack photos as it changed from 1970 to my recent renovations on January 1, 2013. I also scanned in my very first QSL card I ever got back in 1970 and some historic cards of some significance to my radio work. My first radio, my first yagi, my first motorcycle – well you get the picture (sorry for the pun).

Now sitting on the shelf under my certificates and awards is my digital photo frame displaying 43 years of my contact achievements, special photos, and a number of "mini" certificates and eyeball QSL cards collected over the decades. Each one gets admired, brings back memories or shows guests all the countries I've worked – each one with their own story to tell. All in an endless loop of 5-second exposures.

And my wall? My wife suggested I fill the 157 holes I made and repaint the room – and to be honest, it's nice to see the wall colour again!

Gary Skett, VE7AS, has been an Amateur since 1970 when his Grade 12 high school electronics teacher challenged him to get his licence to get an A+ in the course. He did and spent the next 43 years in the electronics industry in many capacities. Gary spends most of his radio time on non-keyboard CW and PSK31 with his Flex3000 SDR. On weekends he joins a special group of Ham friends who have banded together and built a remote multi-station "project" in a farmer's field – off the grid – for contesting and antenna farming.

AMATEUR RADIO PROVES INVALUABLE AT THE RALLY OF THE TALL PINES

Len Arminio, VE3LRM

Bancroft, ON, November 24, 2012 –

"Sweep, Sweep, VE3SWP, this is Hastings Supervisor, VE3LRM. What is the status of car 36?" "This is Sweep. Car 36 is hooked up and we are pulling it to the end of stage". "Roger!"

That's a typical exchange over one of the three repeaters (VA3FOY, VE3BNI and VA3PLA) and several simplex channels passing almost non-stop traffic at the 42nd annual Rally of The Tall Pines held in Bancroft, Ontario.

The conversation is between one of the three area commanders of the rally and one of the five 4x4 vehicles retrieving a damaged performance rally car and its crew.

This year's edition of "The Pines", one of six closed stage rallies on the Canadian Rally Championship circuit, attracted nearly 60 competitors from all across North America. But the back story is the number of volunteer workers, some 200 in all, who helped make the event a success.

Amongst those volunteers were no fewer than 78 Amateur Radio operators who provided critical communications links among rally officials.

The Amateurs helped link Rally Headquarters, start and finish crews of the 15 special high speed "stages" and the many traffic controls, safety marshals and first responder medical teams out on the remote roads.

One of the area Amateur Radio clubs sending volunteers to Bancroft for the rally was the Peterborough Amateur Radio Club (PARC). Peterborough is only about a 90 minute drive south. Seven members of PARC contributed to the event.

There are four "Course Cars" in the rally. "Car 000", Car 00, Car 0 and Car 99". All of the cars are occupied by Amateurs along with the five "Sweep Teams".

Rally car in the air; Photo courtesy of Mike Proulx Photography

Veteran ralliest, Peter Watt, VE3WRX, a member of PARC, was assigned to the important position of "Car 00". His job was to ensure that all the marshalling crews, Traffic controls and safety measures were in place on each stage, which included the safety of the hundreds of spectators and media who lined the routes. Not to mention checking that the clocks were accurate and the sophisticated electronic timing equipment was operational.

PARC member Bob Hlywka, VE3WWI, and his XYL, Jan, a Registered Nurse, formed one of the four "Medic" teams.

In the event of an incident which involved injuries, their duty was to act as "first responders" and determine if any further medical intervention was needed. While they were called out several times for nasty rollovers and incidents of "automotive forestry", injuries were minimal. The rally cars are tough machines equipped with full roll cages, while the drivers and co-drivers are strapped into special seats with five-point harnesses and the "Hans" head and neck support devices; the same type worn by F1 and NASCAR drivers to prevent spinal injuries and concussions.

The author, VE3LRM, was appointed supervisor of the six stages along the Old Hastings Road south of Bancroft, a job which began at 7 am and did not wrap up until the last stage was completed around 10:15 pm. His duties included making sure all volunteers were in place and the stages were ready to operate. He also ensured that all communications were working, "Tactical" call signs were assigned and that we used our Amateur Radio call signs regularly in order to comply with Industry Canada regulations. Generally to make sure the special stages ran smoothly and on time.

Rally Marshall: Len Arminio, VE3LRM
Photo by Tom Kennedy, VA3TVK

On the stages which ran on simplex, we used an aluminum J-pole dual band antenna near the top of a 25-foot mast in the back of our Ram.

The stage was 7.3 kilometres long but only about 5 kilometres as the RF flies. Contact with all stations on the stage was S-4 all the way to S-9+.

We were also the liaison with HQ ably manned by Mike Kelly, VE3FFK, of Ottawa who kept an ear on all the radio traffic on all channels all day and night to pass traffic and keep track of events on the roads. A job akin to herding cats in a rainstorm while simultaneously juggling flaming chainsaws! However, he was too far away for simplex so our dual band Yaesu FT-8800R enabled us to monitor activity on two stages while also listening to HQ or other officials.

Other PARC members running traffic controls and tracking rally cars on route were: Greg James, VE3GVJ, John Sanders, VA3NW, Serge Krisman, VE3PXS and Terry Mackey, VA3MTT.

In addition, several members of the Peterborough Motor Sports Club (PMSC), who are also Amateurs took part as well: Pete Gulliver, VA3PTG, Kevin Devries, VA3KDV, Jean MacGillivray, VE3JNE, Jim Morrow, VA3JUS and Mike VanRees, VA3VRM, who is also President of the local Motor Sports Club.

BTW, the author and Peter Watt, VE3WRX, are members of both the radio club and the motor sports club.

Oh... As for those long hours, volunteers, Amateurs or not, can pick and choose their hours. If a volunteer is only available from 10-3, the organizers will find a spot for them during those hours.

The man who headed up the running of The Rally of The Tall Pines was Ross Wood, VE3WOD. Ross has been Clerk of the Course for years and has been involved in rallying and this event for more than three decades.

Ross says Amateur Radio in rallies was used starting in the 1970s in a small way for more challenging tasks such as contact between a stage or area in the field, back to Rally Headquarters.

"In the early 90s we began a serious recruitment drive for Ham operators", adds Ross, "We gradually increased the Ham communication in our events to the point where we had a Ham operator at the start and finish of every stage".

But he says the big changeover year was around 1996, when Amateur Radio became the primary mode of communication.

"Within a year or two all stage operations were run by Amateurs. The number of operators has steadily increased since that time", he adds.

According to Ross, all the Rally Sport Ontario performance rally events are now run using Amateur Radio. The Rallies out West and most recently in Quebec are using Amateurs as well. Even sedate Sunday drive navigational rallies have Amateurs working to keep track of competitors and track teams who get off course.

"I cannot imagine trying to run an RSO performance rally without Ham radio", Ross emphasizes. And while the 78 Amateurs who helped out were an outstanding number, Ross says he could use 20 more!

Rally Sport Ontario runs a school each year in March to develop new Amateurs. They average 10 to 12 graduates per year.

Now to be honest, many of the Amateurs taking part in these events are what you might call "Weekend" or "Rally Hams". They pull out their rig and mag mounts from a closet or shelf on Friday, plop them on the car seat and roof for the weekend, and stuff them back into the closet on Sunday night.

Sure, we do hear the odd "10-4", especially from those Amateurs who may have been CBers or are currently police officers, paramedics or firefighters.

Despite those things which might not sit well with the traditional "by-the-book" Hams, the sport of rallying is introducing a dozen newcomers to Amateur Radio each year.

Len's station at a previous car rally.
Photo by Len Arminio, VE3LRM

Several catch, not just the "rally bug", but the "radio bug" as well and go on to get Advanced tickets and are regularly heard on the air.

And after all, adding new blood to our hobby, in the long run, is not a bad thing.

ABOUT THE AUTHOR

Len Arminio, VE3LRM, is a retired broadcaster and journalism professor.

He has been an Amateur since 2005 and is a member of the Peterborough Amateur Radio Club, the Quinte Amateur Radio Club and the Peterborough Motor Sports Club.

TCA

TWO VOLTMETERS FOR AMATEUR RADIO STATIONS

Allen Wootton, VE7BQO

Voltage measurements are central to many aspects of the operation of an Amateur Radio station: monitoring power supply and battery voltages can be particularly important. The meters I describe here are well suited to these purposes keeping in mind that they offer modest input impedance and accuracy. One of these meters provides a digital display of voltage on an LED array, the other gives an audible voltage readout in Morse Code.

COMMON FEATURES OF THE VOLTMETERS

Although the method by which these voltmeters communicate the voltage reading to the user is very different, both meters share much in common. Both use the analog-to-digital converter (ADC) of a microcontroller to convert an analog voltage to a digital value that can be manipulated by the microcontroller.

Because the microcontroller ADC is limited to a maximum of 5.0 Volts, larger voltages must be scaled to a value between 0 and 5 Volts. This is accomplished with a voltage divider like that shown in Figure 1.

V_{total}, the total voltage to be measured, is applied to the two series resistors, R_1 and R_2, and the voltage across each resistor is a fraction of the total that is directly proportional to the value of the resistor.

As a result,

$$V_{in} = \frac{R_1}{(R_1 + R_2)} \bullet V_{Total}$$

This means that if, for example, R_2 is three times the resistance of R_1, then V_{in} would be 5 Volts if V_{total} is 20 Volts. With the resistor values I used for the voltage dividers in these meters, the meters can measure to slightly more than 20 Volts.

If you look at the voltmeter circuit diagrams (see Figures 3 and 5), you will notice that the voltage divider used in the meters actually includes a third variable resistor. This resistor, a potentiometer, allows calibration of the meter. Without it, the resistors R_1 and R_2 would have to be precisely matched to the software calculations.

Figure 1: The voltage divider circuit

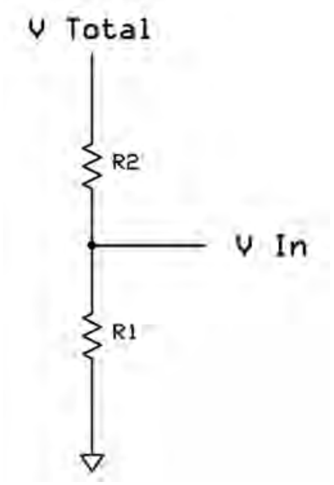
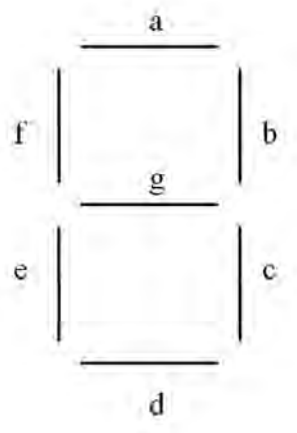


Figure 2 The segments of a seven segment LED display



In addition, you will notice that the resistors I used are of large value, but not as large as would be desirable to make really high impedance meter inputs.

I did experiment with resistors in the 1 to 5 megohm range, but with these I found the voltage measurements were unreliable.

I think this was because the very high resistances combined with the input capacitance of the ADC pin prevented rapid voltage changes on the pin. If you would like a higher impedance input to the meter, however, experimentation with larger values of resistors is possible without changing the software as long as the ratios of resistance are kept close to those I've used.

The voltmeters include an LM78L05 voltage regulator. This regulator is necessary to provide a stable, reasonably precise, reference voltage for the microcontroller's ADC. The potentiometer in the voltage divider also compensates for slight voltage variations from one LM78L05 to another.

In the microcontrollers, the ADCs are set up to use an 8-bit conversion of the analog voltage to a binary number. Any voltage applied to the ADC input will be converted to a binary output that is the same fraction of 2^8 (decimal 256) as V_{in} is to 5 volts. For example, if V_{in} = 5.0 Volts the output from the ADC would be 2^8 whereas if V_{in} = 2.5 Volts, the digital output would be $2.5/5 \times 2^8 = 2^7$ (decimal 128). Once the microcontroller has completed the analog to digital conversion it multiplies the digital output from the ADC by a scaling factor that is determined by the resistors R_1 and R_2. The product of this multiplication is then converted from binary to binary coded decimal format. At this point the two voltmeters differ from one another.

THE DIGITAL VOLTMETER

The digital voltmeter shows the voltage reading on an LED display. Each digit of this type of display is composed of seven LED segments, labeled by convention as shown in Figure 2. To show a zero on this type of display segments “a”, “b”, “c”, “d”, “e” and “f” must be energized. All segments are energized to display an 8 whereas a 1 uses only segments “b” and “c”.

There are two ways in which the segments in these 7 segment displays are connected. A common anode display has one common connection for the anode of each segment and seven separate cathode connections. A common cathode display has one common connection for the cathode of each segment and seven separate anode connections.

For the voltmeter I used a common cathode display. Because the display has four digits, however, the “a” segment anodes of all four digits are also connected together, as are the four “b”, “c”, “d”, “e”, “f” and “g” segments. With these connections the digits can be multiplexed by sequentially driving each anode group by one pin of the microcontroller while another pin provides a separate ground connection for one of the digits.

For example, to display 10.28 Volts, first the “b” and “c” anode connections are energized and only the digit 1 cathode is grounded. After a short pause, segments “a” to “f” and the decimal point are energized while only the digit 2 cathode is grounded.

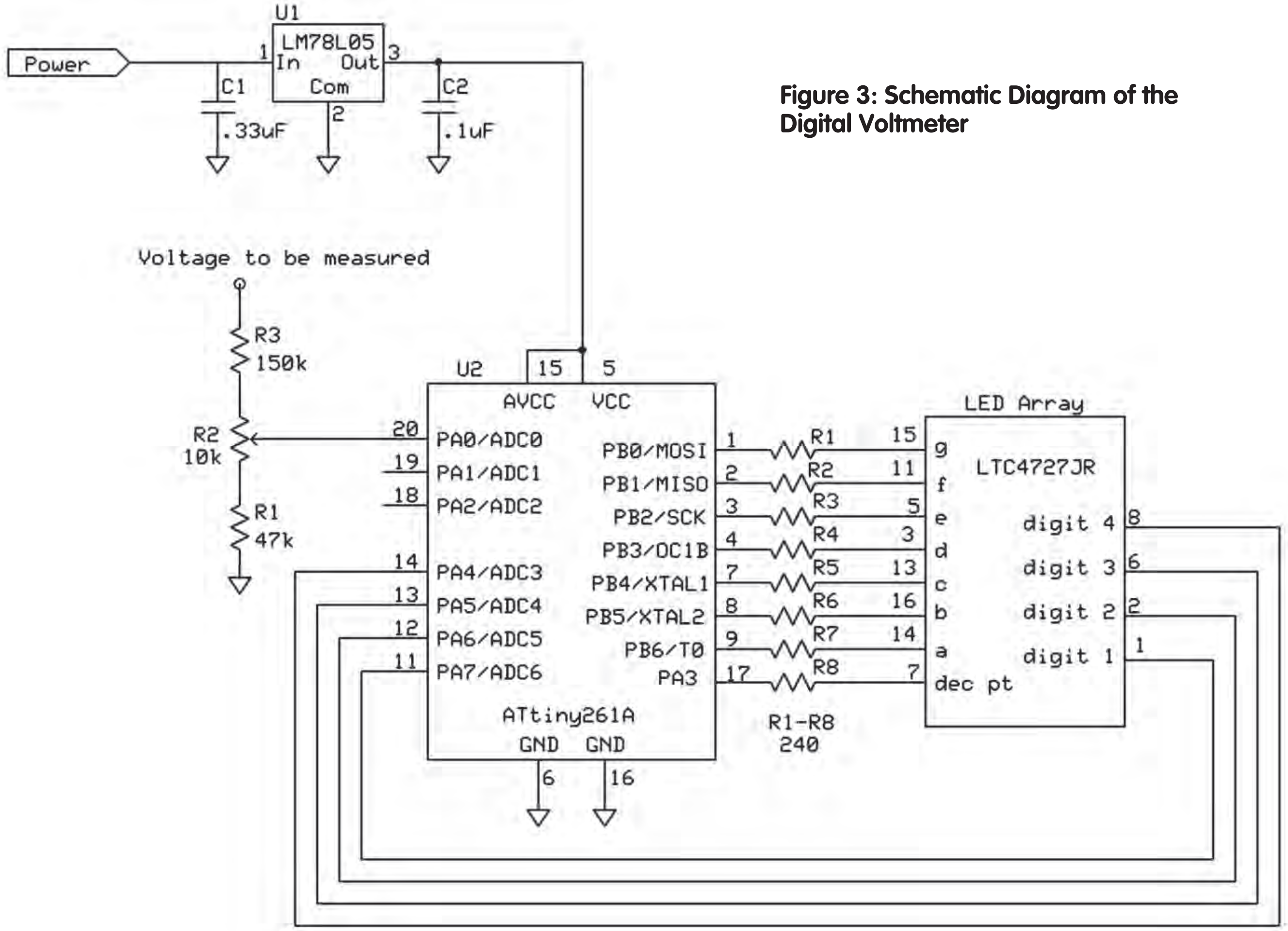


Figure 3: Schematic Diagram of the Digital Voltmeter

After another short pause segments “a”, “b”, “d”, “e” and “g” are energized while only the digit 3 cathode is grounded. Finally, after another short pause all the segments are energized while only the digit 4 cathode is grounded. By rapidly repeating the sequence the numbers appear constant. As you can see, 12 microcontroller pins are required; seven for the segment anodes, one for the decimal point anode, and four for the digit cathodes.

The circuit diagram for the digital voltmeter is shown in Figure 3. This voltmeter uses a 20-pin Atmel ATtiny261A microcontroller that has a built in ADC and the necessary number of pins to drive the LED display. The voltmeter is calibrated by connecting the voltmeter and a separate reliable and accurate voltmeter to the same battery and adjusting potentiometer R2 until the voltages measured by the two meters are as close as possible. They may not match exactly because the microcontroller ADC 8-bit conversion cannot resolve 0.01 Volt differences.

Nevertheless, you should be able to adjust the homemade meter so that it matches a commercial voltmeter reading to within about 0.05 Volts over the full range of the meter. Note that if the first of the four digits is a zero, it will not be displayed.

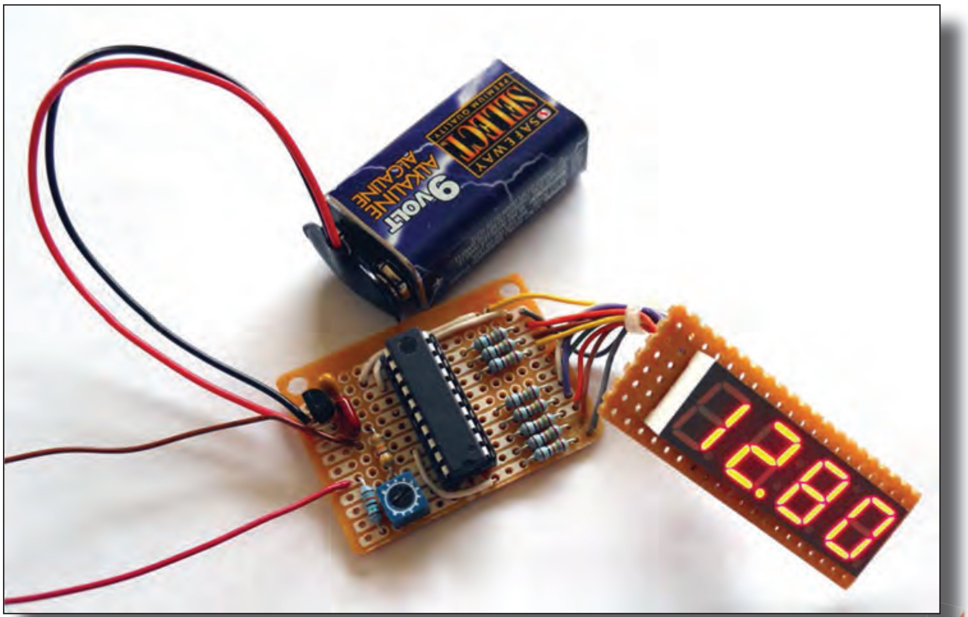
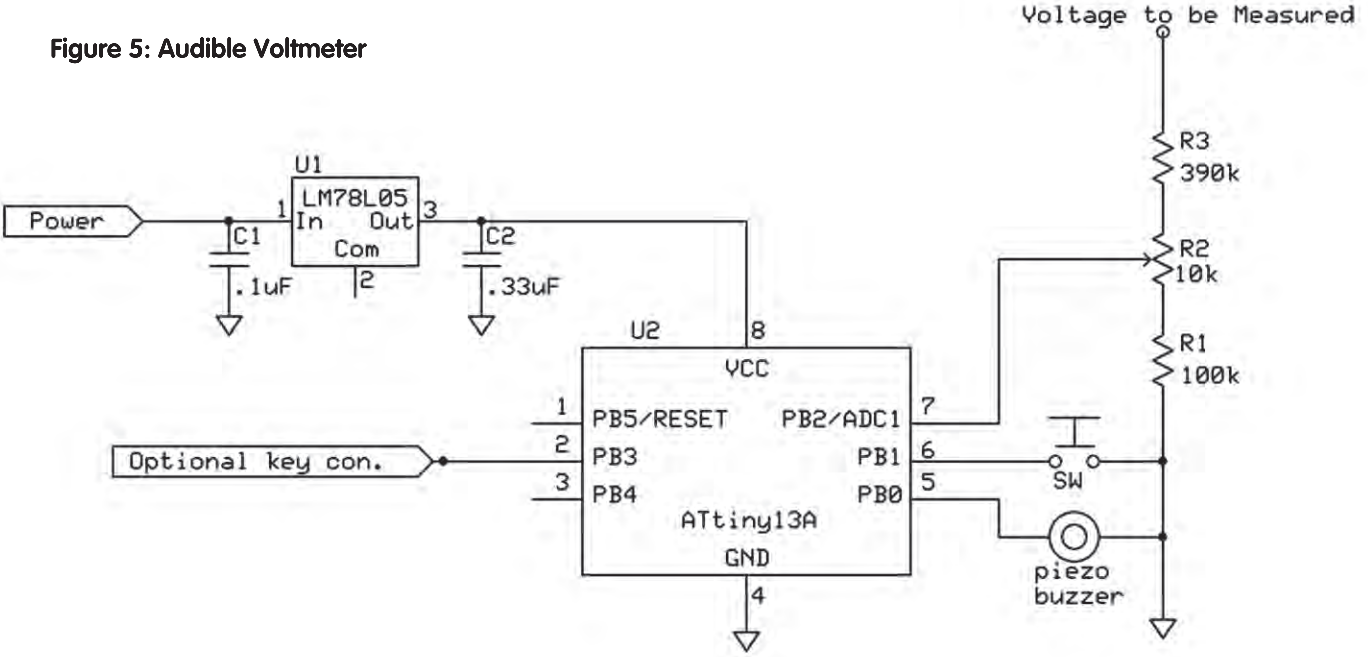


Figure 4:The Digital Voltmeter

Here the voltmeter is powered by a 9 Volt battery while it is measuring the voltage of a 12 Volt battery. The meter can also be powered by the same battery (or power supply) it is measuring. The LED display is separate from the rest of the circuitry so that it can mounted into the front panel of a power supply.

Figure 5: Audible Voltmeter



A photo of one of my prototype digital voltmeters is shown in Figure 4. You will notice that the meter circuitry is operating from a 9 Volt battery. This is for convenience only, and, since the meter draws up to about 50 mA (depending on how many segments are illuminated), it is not something I recommend for other than short duration testing. The meter is ideal for connection to a typical station power supply, however, where its current draw will have an insignificant effect. In this type of application the power supply can provide the power source for the meter while the meter measures the power supply voltage.

THE AUDIBLE VOLTMETER

The circuit diagram for the audible voltmeter is shown in Figure 5 and a photo of the meter in Figure 6.

This meter uses an 8-pin Atmel ATtiny13A microcontroller. When power is applied to the circuit the ATtiny13A carries out a few preliminary program steps and then goes into sleep mode until the push button connected to pin 6 is pressed.

The button press ends the microcontroller's sleep mode and, after going through the same calculations as are performed by its larger ATtiny261A relative, the voltage is transmitted digit by digit in Morse Code at about 20 words per minute. With the transmission complete the microcontroller goes back to sleep until the push button is pressed again. In sleep mode the circuit draws about 2.5 mA and about 3.5 mA when transmitting the information.

I think that this audible voltmeter has many potential applications. For example, it could be used for remote reading of voltages. In this application the push button used to ground pin 6 could be replaced with a signal from a receiver (like a squelch voltage change from 5 Volts to zero) that would have the same effect as the push button in starting the voltage measurement. Instead of the piezo buzzer, the audio from pin 5 could be coupled through a capacitor to the audio input of a transmitter.

Alternatively, pin 2 of the microcontroller is programmed so that with each dit or dah the pin voltage changes from 0 to 5 Volts. With the addition of either circuit shown in Figure 7, this pin could be used to key a transmitter.

The performance of this meter is similar to that of the digital voltmeter. Once calibrated, it matches my Canadian Tire voltmeter to within about 0.05 Volts over its range. As for the digital voltmeter, a first digit zero is suppressed.

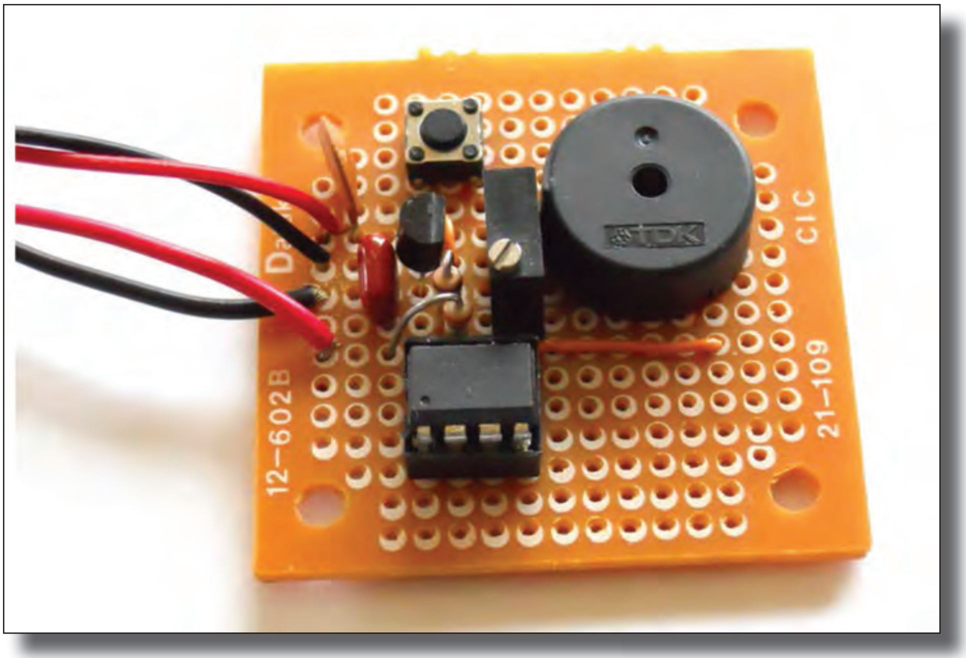


Figure 6: The Audible Voltmeter

When the push button is pressed the voltage is sent back in Morse Code.

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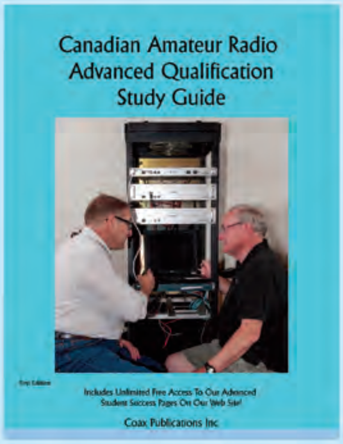

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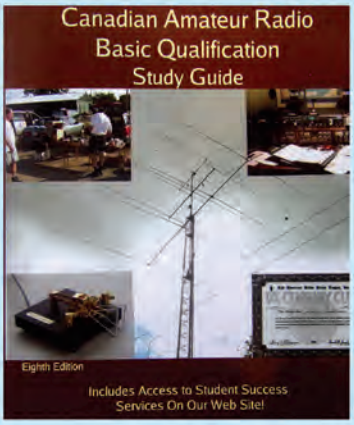

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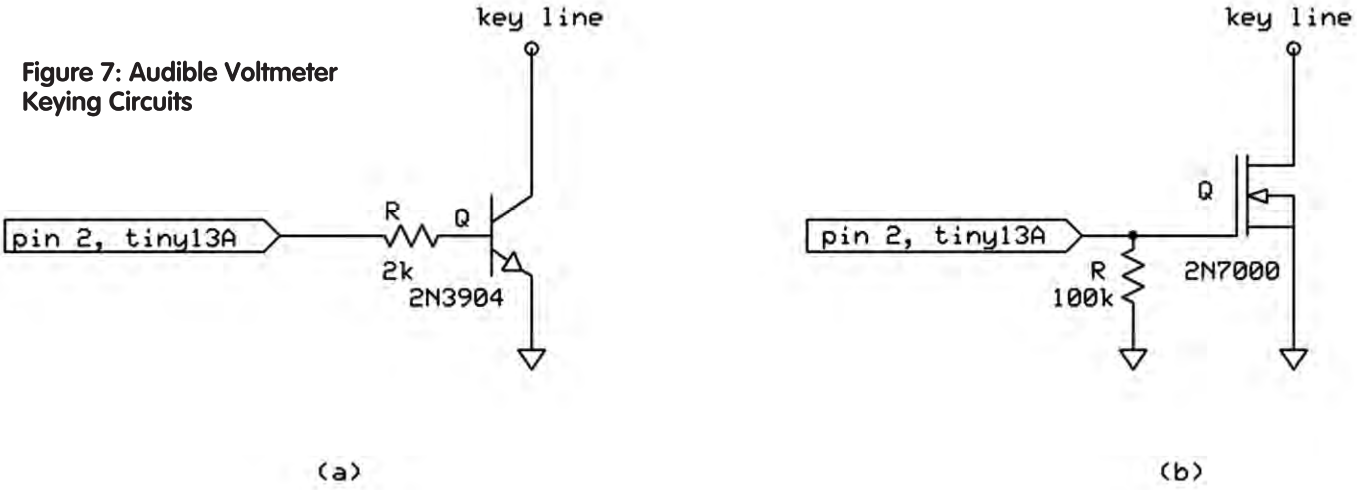

Figure 7: Audible Voltmeter Keying Circuits

SUMMARY

These voltmeters are inexpensive and easy to make. The microcontroller programs are available for download on the RAC website at <www.rac.ca/tca> and I have annotated them with more information than is found here. I use an Atmel "Dragon" and the free software Studio4 to program the microcontrollers on which the meters are based (www.atmel.com). If you do not have these facilities but would like to make a meter I will do the programming for you if you send me the appropriate microcontroller.

ABOUT THE AUTHOR

In his own words, Allen has been interested in "radio and electronics since I was a teenager and I have held the call VE7BQO since I was 15 in 1964."

"I retired from my job as a high school teacher in 2007 and I am now enjoying having time to pursue my interests in Amateur Radio, photography, woodworking and outdoor activities."

Allen can be reached by email at <awootton@uniserve.com>.

YL NEWS AND VIEWS

OUR YL PROFILE: LINDA HARVEY, VE1QT

Well the birds are singing, the grass is green, the trees are all full and everything looks lovely, as spring has finally arrived... no not really, but by the time you read this all the above will be true. Right now here in Moose Jaw, Saskatchewan we have a foot and a half of snow, beautiful blue sky and temperatures sitting at –6°C. Oh well I can dream.

The YL I am going to tell you about today comes from Canada's Ocean Playground – Nova Scotia. This YL is just so active on radio that she really does make me tired. Ladies and gentlemen, I give you Linda Harvey, VE1QT.

Linda got her licence on November 15, 1991 with the call sign VE1BEW. She got her present call in August 2006. Most of the time she is on 20, 17 or 15 metres. Her Elmer was Eddie Allen, VE1BEW (SK). She is a net controller on Friday mornings on the Professional Loafers net (3.735 at 9 am local). What a wonderful name for a net. Linda also checks into the CLARA Net on Tuesday Mornings, the 40m on 7.055 and the 20m on 14.120, as well as any others she can get to.

Linda likes DXing, Field Day, contesting, collecting QSL cards, and working for and receiving awards. She has her DXCC, WAC, WAC-YL and many other awards. Linda is still trying to work every country of the world (she has 200 worked and confirmed). She is also working on the DX 100 YL Award (45 confirmed) and the Worked All States YL Award (only 28 confirmed). Ladies you can find her on the DX YL Net (Mondays 1500z on 14.289). Any award information is welcome and appreciated.

Linda has just finished the Grandmothers Award for the Young Ladies Radio League (YLRL) and is now working on her Great Grandmothers Award and on the Century Club Award. This is the hardest one to get as she is trying to work 100 YLs in Canada. So ladies, let's help her out – she just needs to be able to contact you and then you need to send her a QSL card for confirmation. Linda says that she is nowhere near finishing her WAS YL Award, but one of these days even that one will be done. Linda just finished her WAS-OM, but not all are confirmed on it yet and she is trying to work nine that she is missing.

Linda is a member of RAC, the YLRL (she just received her YLRL five-year continuous membership certificate), the Canadian Ladies Amateur Radio Association (CLARA), and the Truro ARC, where she has served one year as Vice-President. Currently, it is her job to make sure that there is a lunch for each meeting.

A lightning strike forced her to make a few changes to her equipment: HF is now a Yaesu FT-990 and the Kenwood TS-450 is now her backup radio. Her other radio, a Yaesu FT-450, is now for sale. Linda's antenna is a dipole antenna for all HF bands 100W. Her VHF Yaesu FT-2900 is fed into a Diamond X50 on a 64-foot self-supporting tower.

Linda does not have a computer so looking up call signs or getting eQSLs is not only difficult, but impossible. Linda definitely does QSL and she says please do direct with an SAE and that $2 USD is preferred. The QSL Bureau is fine but *slower*. All mail is sent out at the end of each month. She does QSL – 100%, the old-fashioned way.

In addition to Amateur Radio, Linda likes to spend time with Daniel (her OM), her family and friends; playing cards, travelling, dancing and eating out. She collects cookbooks, mugs, solar lights and anything with a butterfly on it. Purple is her favourite colour.

Val Lemko, VE5ACJ
1125 Iroquois St. W.
Moose Jaw,
Saskatchewan
S6H 5C1
E: ve5aq@sasktel.net

Linda is also an avid cribbage player and from my understanding she is really good. Linda and her card partner have just finished some wonderful bus tours, travelling to Newfoundland, Prince Edward Island and also an Alaskan tour.

Linda has one daughter (married) and her son-in-law is a teacher in Champlain College in Quebec. Her granddaughter just finished college and in September she will be heading to Bishop's University to work on her Bachelor of Arts degree. Her grandson presently has one year left of high school and no idea of what he wants to do in the future – yet.

Now you know all about Linda – oops, sorry the best part of this entire story is that Linda is legally blind. She has enough vision to get around, but obviously she does not let that keep her from doing the things that she loves.

Thanks Linda! It has been so nice chatting with you on the phone, especially when you laugh at my corny jokes.

That's all for this time around folks. Please enjoy your spring, drive with care – and above all, enjoy life.

MORE WONDERFUL NEWS FOR FUTURE YOUNGER YLS

As many of you know and remember, the previous author of this column was Cathy Hrischenko, VE3GJH (SK).

Cathy was of the opinion that there was nothing better than YLs on the radio.

Sadly, Cathy sadly passed away on March 20, 2009. Her wonderful husband (of 58 years) George Hrischenko, VE3DGX, had several ideas about how to commemorate Cathy – with one idea being a "Monster Station" that is remotely controlled for phone patching to our soldiers and sailors posted far away from home and their families here in Canada.

CATHY HRISCHENKO VE3GJH MEMORIAL YL AWARD

The Award is open to all YLs up to the age of 19 who:

- Have passed an Amateur Radio exam after January 1, 2013
- Have received an Amateur Radio call sign from Industry Canada
- Have operated an Amateur Radio station and made at least 10 contacts

Applicants should send George Hrischenko, VE3DGX, a copy of the list of 10 contacts. Please note: if you have made five CW contacts please list the contacts in your email message.

If you are a successful applicant and are a recipient of the new Award please send a picture of yourself at your station and a brief bio to the YL columnist (currently VE5AQ) for potential use in *The Canadian Amateur* magazine.

To apply for the Award or to obtain more information please contact:

George Hrischenko, VE3DGX – dgxgeo@hotmail.com

After serious consideration – and especially in this day and age with cellphones, computers and other means of communications – that seemed not to be the best way.

George spent a couple of years soul searching and then he remembered the lovely CLARA dolls that Cathy used to take to every hamfest where she would always have a table to promote not only CLARA but Amateur Radio.

Cathy would invite the young ladies to sign their names to the skirts and then she would say: “When you get your radio licence, please come back and put your call sign beside your name.” Many, many YLs did just that.

So now George has come up with an idea which not only promotes Amateur Radio, but should also draw in more young girls into this wonderful hobby.

So here is the idea. For every young girl who takes an Amateur Radio course that is offered by a club – or who does it on her own – and earns her call sign and gets on the air (successfully making 10 contacts or more), George will be happy to offer an Award of $100.

So come on girls, let’s help to get more YLs on the air. George also asks that if you are a recipient of one of these Awards, that you send a photo and your story to me for use in the “YL News and Views” column.

George is also asking you to let him know if you have made five CW contacts. Many people say that CW is a dying form of communication, but if you check the bands you can always hear that sweet sound that comes only from CW. For those of us who are “Older” and had to learn CW, there is no nicer way. The throat does not get sore from talking so much and it gives the brain a really good workout. One must always keep things working. You know the old adage: “Use it or lose it”.

Thank you George for your continuing support of all the YLs. It is so nice to know that YLs have a place on the radio, just as much as the OMs do.

Lastly, ladies, don’t forget about CLARA. We are a worldwide organization of Amateur Radio operators. You can check out the website at <www.clarayl.ca>. We would love to have you join us. If you would rather just join us on air, that is fine too. You do not have to be a CLARA member to get on the nets. Just hearing your voice on the radio is enough.

CLARA has a 40m net on Tuesdays at 1400 UTC (winter) and 1500 UTC (summer); a 20m net on Tuesdays 1700 UTC on 14.120; and also an 80m net on Mondays 2400 UTC (winter) and 0100 UTC (summer) on 3.750.

So if you are around come on in, the company is welcome. CLARA nets run from September to May. Lastly, don’t forget the CLARA YL & Family HF contest on March 19 and 23.

That’s it for this time around. Do take care and I will catch you down the bands.

33, 73, 88 as the case may be...

Val, VE5ACJ

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OVERWHELMED AND CONFUSED

As a new Amateur Radio operator, you may find yourself just a little disoriented or confused as to what type of radio you should get as your first rig. And believe it or not, some new Amateurs really agonize over such a decision. To determine what type of radio is best for you, you need to determine what type of communications you will be doing on a fairly regular basis.

If you plan on doing an equal amount of communications while out about – such as walking or biking, driving in your vehicle, and hanging around at home – a handheld unit might be the most suitable for you. If most of your communications will be done on the move in your vehicle due to work or personals reasons, then you might want to invest in a mobile unit. And if you intend to work other Amateurs almost exclusively from home, or operate HF often, a base unit might be your best choice.

The handheld, or HT, is the most versatile rig for communications almost anywhere at anytime. Compact transceivers with an on board power source and antenna, HTs fill the gamut from casual contacts to intensive emergency communications. However, with complete portability come a few limitations. An HT is limited in power output, with various models peaking at five to seven watts. HT antennas, even after-market high gain ones, can only improve the transmit signal so much.

On the other hand, a mobile unit is limited in portability, but with power outputs anywhere from 25 to 75 watts, and used in a vehicle powered from the battery and a well-designed mobile antenna, it can easily outperform the distances covered by HTs. A mobile radio is the best choice for those new Amateurs who expect communications to occur when they are mostly in their vehicle.

Most base units are limited to operations in one fixed location. What they lack in portability they make up for in power and distance. A large beam antenna on the roof and a couple of hundred watts in signal output can mean a direct simplex communication can occur over a distance much further than that provided for by repeaters. Well designed base stations can hit repeaters in distant cities, where HT and mobile communications are limited to fairly local use. Yet new Amateurs can talk around the world with just an HT, accessing an Internet-enabled local repeater. Base units are the best for HF work, HTs mostly for VHF/UHF, and mobiles are flexible for both.

Statistically, most new Amateurs go the handheld route. Some models can be very inexpensive and you can get on the air almost immediately. As for whether to get a single band or dual band radio, that depends on where you plan to operate. If you live in an area that has many two metre and 70 centimetre repeaters, you may wish to get a dual band unit to take advantage of all the communications opportunities that might exist on one or the other band, such as Echolink or IRLP. If you are budget conscious, or live in an area that has limited repeaters, you might choose a single band HT for the band of the local repeaters in your area which might be VHF or UHF. If you still can't decide which route to go, then my recommendation is to go for a single-band two metre (VHF) handheld radio. Two metres is the most used of the Amateur Bands both here in Canada and the United States and you should find either repeater or simplex activity in most areas regardless of where you live or travel to.

In addition, an HT is so versatile, that with an external power source, speakermic, and antenna, you can quickly turn your handheld radio into a low power temporary or semi-permanent mobile or base setup.

So don't fret over acquiring your first radio. Most new Amateurs purchase their first rig as a "trainer" radio to get on the air and get talking, learning what the hobby is all about. They don't worry about all the bells and whistles that other radios come with. As you get more comfortable and knowledgeable in the hobby, you can upgrade your radio to something that fits in better with your operating desires and needs.

Check out eBay and Kijiji, search the online Amateur sale and swap sites, and do your research. You will soon find the right starter radio that will get you on the air, get you talking to fellow Amateurs, and help you discover what types of radios you eventually may want to upgrade to.

Here are some famous Amateur Radio operators (as gleaned from various sources on the Internet, accuracy not guaranteed):

- Feargal Sharkey – 80s singer of "A Good Heart" (which apparently is hard to find)
- The late King Hussein of Jordan (yep, a real king, crown and all)
- Newscaster Walter Cronkite (look him up kids)
- Country singer Patty Loveless (I know, weird)
- Priscilla Presley – ex-wife Elvis, uh huh huh (I know, more weird)
- Steve Wozniak – co-founder of some tiny computer company (Appel, Apple, something like that)
- And a whole bunch of Russian and American astro/cosmo nauts

And you thought only geeks and nerds like us became Hams!

Transmission Tidbit:

New movie at the box office:

An Amateur Radio operator has to deal with the consequences when his mute brother suddenly speaks after years of silence – "A Squelch Tale".

I would love to hear from our new female and very young Amateurs on your first impressions of the hobby, both positive and negative.

Write me via the magazine; email me at phillipjboucher@gmail.com, or via my website at www.phillipjboucher.com.

My new E-book will be available in 2013, "The Complete Guide to Yaesu's VX-6R".

FIELD DAY 2012 – VE3XR

Vic Henderson, VE3FOX
and Mark Pulciani, VA3MPT

If there's one event that brings together the members of Peel ARC in Brampton, Ontario, it has to be the annual Field Day.

As a club seriously involved in the Amateur Radio Emergency Service (ARES), planning for the unexpected and how to effectively operate under emergency conditions, Field Day brings it all together.

While the club participates in many public service events – such as providing communications for local walkathons – and always takes part in emergency exercises staged by various agencies in and around Brampton, Field Day is a unique opportunity to which everyone looks forward.

Preparations for Field Day 2012 started not long after the previous Field Day, hoping to maintain the momentum and "hit the ground running". Indicative of the enthusiasm for Field Day, it didn't take long for all of the various bandleader and other functions to be filled.

As in the past several years, we were able to secure a large park area, located in central Brampton, that proved more than sufficient to erect antennas (lots of trees) and spread out the tents and trailers for each of the stations. As a public park, it ably served one important function: to make ourselves accessible to the general public so we could help promote Amateur Radio and our role in the community.

Unlike some years when the weather was absolutely horrid, it cooperated for this Field Day. Better still, the mosquitoes seemed to have found other victims and, for the most part, stayed away.

Most of the antennas went up without too much trouble and new this year was a 20 metre Yagi that helped immensely.

Richard, VA3RMU, working the digital station.

While most stations operated voice, we tried to put an emphasis on CW, wanting to capitalize on the double points.

Thanks to a very dedicated team of CW Ops, they racked up more contacts than ever before, greatly enhancing our score.

In addition the digital station had a stellar year, almost tripling their previous years achievement, which certainly helped with our score.

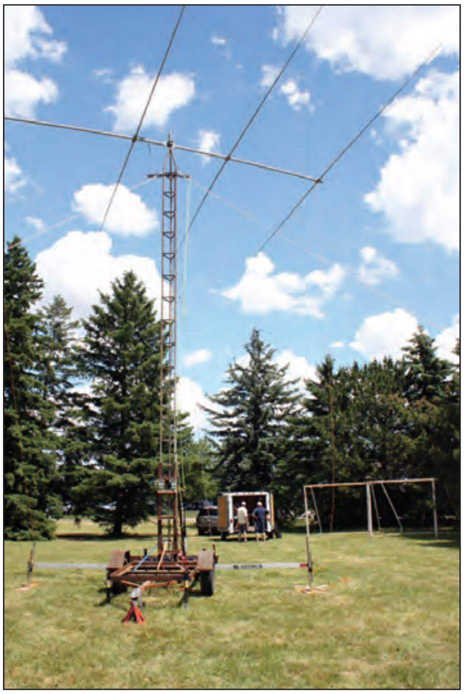
Using generators, solar cells and batteries, all stations transmitted without AC power to better simulate the emergency operation aspect of Field Day.

Again this year we ran a GOTA station, not just for the extra points but as a way of introducing people to Amateur Radio to see if they would like to take it up as a hobby.

Several young Ops seized the opportunity and performed superbly in making contacts on HF. In recognition of their efforts, a certificate was designed and presented to them as a reminder of their contribution to Field Day.

So how did all the planning turn out? Peel ARC was able to take the title of Top Canadian in the four transmitter (4A) category, ranking 11th out of 168 entries in North America. We also moved up considerably in the overall standing, ranking first among all stations in Canada, regardless of the category, with a score of 9,118 points based on 2,539 contacts.

This is the highest score and ranking ever achieved by the Peel ARC in its 50 year history and is due, in no small part, to the dedication of many people, all of whom should feel very proud of their efforts.



New this year was a 20 metre Yagi that helped immensely.

Paul, VE3TA, working 20 metre CW.

Have we already started to plan for Field Day 2013? You bet!

We will be looking to contact you on as many bands as possible.

2012 ANNUAL REPORT ON DEFENCE OF AMATEUR RADIO FUND

2012 Annual Report on Defence of Amateur Radio Fund
Defence of Amateur Radio Fund Trust
25 Queens Crescent, Brandon, Manitoba R7B 1G1

Financial Statement: December 31, 2012

BANK BALANCE	January 1, 2012	$2,562.07
Deposit	Donations	$1,700.24
February 27, 2012	Cashable GIC	$11,649.38
Expenses	Bank Charges	$84.00
February 27, 2012	AON Reed Stenhouse Inc. Directors & Officers Liability Insurance	$667.44
February 27, 2012	Bryan Rawlings, VE3QN 2012 – WRC-12 Meeting Expenses, Geneva	$9,251.91
December 4, 2012	Bryan Rawlings, VE3QN WPA-5A Meeting Expenses, Geneva	$5,590.11
Bank Balance	**December 31, 2012**	**$318.23**

BANK STATEMENT

Bank Account RBC Trust 105-535-1 Main Branch Calgary, AB **$318.23**

1) January 18/11 $2,3051.90 – 2 yr GIC @ 2% Matures Jan 18/13

2) April 1/11 $10,200.00 – 2 yr @ 2% Matures April 1/13

3) January 19/10 $11,466.85 – 3 yr GIC @ 2.1% Matures Jan 19/13

Total Bank Account	**December 31, 2012**	**$318.23**
Total of GIC's Invested	$44,718.75	
Total Fund	**December 31, 2012**	**$45,036.98**

Amateur Radio competes with broadcasting, aviation, marine, commercial, governmental, and other interests for the radio spectrum.

The International Telecommunications Union (ITU) holds a World Radio Conference (WRC) every four years to review international regulations and update allocations of radio frequencies for all radio frequency users.

Having a certified Amateur as part of the official delegation gives us a full-time advocate to defend our existing allocations and negotiate for new ones as technologies and the needs of other radio spectrum users change.

Canada is one of a few countries that includes an Amateur representative as a part of the official delegation at the negotiating table, but Industry Canada doesn't pay the Amateur Radio delegate's expenses. The Defence of Amateur Radio Fund (DARF) Trust was created to fund these travel and living expenses by collecting donations from clubs and individual Amateurs.

DARF was founded in 1991 by Tom Atkins, VE3CDM and Bill Loucks, VE3AR (now both Silent Keys) to cover the delegate costs for the 1993 Conference. Because of your continued donations, DARF has been able to fund delegate expenses since then. Only reasonable, pre-approved travel expenses to attend the actual conferences are reimbursed. Use of DARF Trust funds is restricted to supporting delegate activities related to spectrum retention, expansion and the continued recognition of the Amateur Service as a legitimate radio spectrum user.

DARF is independent of Radio Amateurs of Canda and has its own Trustees, who are also independent of RAC. DARF does not support other, non-spectrum related issues such as towers, interference, etc.

DARF has a vacant Trustee/Chairman position. If you are interested please contact Dave (dsnydal@mymts.net) or Gerry (telwest@telusplanet.net).

For more details on DARF please visit: http://darf.rac.ca/DARF/Home.html

Dave Snydal, VE4XN, Treasurer
Gerry Hohn, VE6LB

REFLECTED SIGNALS: TCA 1977

About 3,000 Amateurs were reading TCA by this time. Coloured ink started to appear on the front cover drawings, (although nowhere else in TCA).

In 1977 Amateurs got to tour VE8RCS at Alert and VE0ND on *HMCS Protector*. They got a tour of the 40m band, who is where, and why.

There was big news in the telephone world: Phones would no longer be wired to the wall. Instead tiny new plugs and jacks would appear in every home across the country. In Toronto and Hamilton, mobile phone users would get direct dialing instead of saying "Operator, this is YJ6---, get me 555 2096".

Licences went to $13.50 per year and mailing the magazine went to 20 cents per issue.

There was a review of a UHF Transverter, and a review of the threats to the 70 cm band.

The Commonwealth Games were coming to Edmonton, Alberta in the next year so CG6A was issued to the Games headquarters station.

The articles about 2m included a roundup of the how and why of selective calling and CTCSS.

There was a story about a firsthand account on how to (and how not to) make autopatch calls to emergency services on 2m. The emergency of the year was a big forest fire in Saskatchewan.

Ferrite rings, or "Doughnuts", were introduced. It seems the word "Toroid" hadn't come into common use yet.

Amateur satellites were expected "soon" from the USSR and Japan. The year's articles included a speculative look ahead to the 1980s.

73, Mike Kelly, VE3FFK

AN EARNEST SUGGESTION…

Andy Neimers, VA1FJT

I hadn't run a net for some 15 years when a few months ago the local club suggested I tackle being net controller from time to time on our local 2m repeater. I did, and I'm glad I did…

It wasn't long before I was reminded of the joys of "speaking in tongues", so to speak, as I tried to decipher the call signs and names of the participants. Between local accents, I'm guessing some false teeth foibles, and some lips made numb by more than one glass of dinner wine(?), I had my hands full. Especially so since I was new to the area and didn't know all the local net participants. (It's always tempting to say "characters" eh?)

I was therefore once again reminded of the good arguments in favour of using the standard NATO phonetic alphabet as much as possible. If it's good enough for the armed forces of the 28 member nations then it should be good enough for the ranks of our Amateur Radio fraternity.

Having "hammed" on both coasts and in Ontario, I have observed over the years that some members of our fraternity assume that their call sign lights up like a beacon in the minds of others when they cast it out, and the quicker the better. That may be true if one is indeed a well-known local "character", but for us non-beacon types it becomes a "what the H…?" moment.

Accents are interesting things. In melting pot Southern Ontario, where if I remember correctly from my Ryerson days, the accent is described as "mid-western neutral", you only have to get up to the Ottawa Valley to start noting a difference. They "speak right quick" don't they though? British Columbia is pretty neutral down south but you have to learn the local *bon mots* such as Skookum and Saltchuck.

It's when you get out here on the East Coast, as any tourist can tell you, that you start to "strain" a bit. "What did he/she just say!?!"… The locals of course have an ear for such things and I'm reliably told that in the Bluenoser province the locals along Digby Neck can tell the difference between Digby to, say, Mink Cove, and then Mink Cove to, say, Tiverton on Long Island, and then the Long Islanders can tell who's from Brier Island and Freeport further on down. Could be… For me it takes some "powrful' lissenin' ". Did your waitress just say "And so where you from then?" or was it "Antso wear ewe roam thin?" or "Try our local lobster" which sounded more like "Troy or lo-cal lob stir".

My neighbour lady is from Newfoundland and can turn that wonderful dialect on and off at will. She says you can tell if somebody is really from The Rock by how many swear words they can work into a simple sentence. I gather that good cussing is a local art form.

It's an old adage that if you want to learn to speak any language without what is considered an *accent*, you have to start early and preferably before age eight or so. It's also easier and that's why kids can pick up two and three and more languages without trouble. It's all in developing the nerves to the lips and if you don't do it early enough you'll always have a slight accent. And that especially counts for the fundamental sound differences between Western and Oriental languages or dialects.

Now all that may be "academic" if you only pound brass and use the standard and universal contractions and idioms of "CW speak".

But once you open your pearly teeth in front of a mike, you are faced with the challenges of understanding the other guy or gal, and the conditions are not always "5 by 9" and don't we know it!...

So let's run through the alphabet and think about why the NATO phonetic alphabet is such a valuable tool in our ham skills repertoire. (Had to work in the 25-cent word "repertoire" because it sounds so "learned", eh?).

And what I'm speaking about is only my personal take on it and not definitive by any means, but since I also speak one of the Eastern European languages I do have some insight on how misunderstandings arise.

So here's my list and the permutations and combinations that can get us off track if we "don't do NATO"…

Letter A: Pretty straightforward except in English it really sounds like "Eh" or even "Hay". And is often pronounced "Aahh" (long sound) in many parts of Europe, so don't get angry at your new European contact because they are asking for a repeat. So we use "Alpha" and all becomes clear…

Letter B: Right away we are into one of the sound double-takes of the English language because it is so easy for the tongue to make it also sound like "V". Might be OK with full quieting on FM but with a bit of QRM and QRN on 20 metres, or that extra glass of wine with dinner, and look out…

Letter C: Obviously a patsy for various interpretations because it can range in actual English speech from a "k" sound to "sea" and while the brain scrambles to interpret it correctly the speaker is already on to the next letter. That's why "Charlie" cleans up the mystery so nicely.

Letter D: Can be "no problemo" but it can slip into a "t" sound without to much effort. Better use the well-known Delta instead.

Letter E: OK, this is again one of those letters that can confuse Europeans or others working DX. While pronounced "eee" in English it is exactly the same sound as many Europeans pronounce the letter "I". Their E is pronounced "eeh" – long vowel – and so there's little confusion when you do use "Echo" instead.

Letter F: No problems with that one for me, but I still think Foxtrot is a classier word and more fun.

Letter G: OK in English "as she is spoke" but it is often pronounced "Gaah" in other languages so there's the argument for "Golf" which by now is the game that all the world either loves or hates.

Letter H: Which is pronounced like "aitch" in English but is "Haaa" you know where. "Hotel" is however also known around the globe.

Letter I: As I noted discussing the letter E, this is the flip side of the equation. "India" makes it clear.

Letter J: The "jay" sound works but "Juliet" has a nicer ring to it, and once again it is often pronounced "Yot" over you know where so why confuse them?. And those in Spanish speaking countries are used to pronouncing it "Haa".

Letter K: It's pretty universal and doesn't cause much confusion although Kilo is also quickly comprehended in all countries which use the metric measuring system.

Letters L, M and N: Again, no problem. These ones have the distinction of having a near universal proximity in pronunciation with the exception of some Oriental languages. But "Lima", "Mike" and "November" serve better.

Letter O: Not much confusion here with one exception – of course! – and that is that some Eastern European languages are used to pronouncing it with an "o-ah" sound. Those darn Europeans, eh?

Letter P: This one is often included as part of a "B" and "V" trio for potential misunderstanding. Just got to cut down on that extra glass of wine with dinner and all will be fine. Is there however a more universal word than “Papa” with the possible exception of “Mamma”? You decide.

Letter Q: You could see this one coming, right? The English mind hears a “cue”, and Q doesn’t exist in many languages. When it is “used” to approximate the English sound it is pronounced something like “Koo”. So use “Quebec” freely because that puts Canada on the map each time.

Letter R: Usually no problems although it’s more like “er” over there! Remember where you heard it first.

Letter S: Again no problems and almost universally the same sound. But “Sierra” puts the romantic southwest on the map. Happy trails.

Letter T: OK but can sometimes slur into the “B” and “V” mix and I really like “Tango”. See my call sign. And it’s often “Teeh” sounding when sent from “over there” and you are on the listening end.

Letter U: You and I hear “You” when you use it. (Starting to sound like an unfunny joke.) And pronounced “Uuh” you know where, so use “Uniform” and support our armed forces.

Letter V: Yes, do see the comments about the “B”, “V”, “T” trio of tongue trippers. So “Victor” makes it clear for all of us. Don’t be surprised by your DX contacts coming back with sounds more like “Veeh”.

Letter W: Well now, this is a real bit of misdirection as the obvious sound is “Double You”. But it is distinct. The letter is also not found in many languages over you know where and when they us an approximation it gets no better as it is always a translation of something like “two V’s”. I find it interesting that the NATO gurus chose the “Whiskey” spelling rather than a Whisky spelling. I suspect there was some lobbying going on when that choice was made, perhaps (gasp!) even involving “whiskey”??.

Letter X: Pretty distinct so no real problems. And “X-Ray” sure makes it very clear what you are saying. Oh, once again, not found in some languages.

Letter Y: Joining the list of “not found in some languages” is also “Y”. And when it is approximated it is pronounced as something like “igrek”. (No clue on the origins of that one.) Since the NATO’s phonetic choice was “Yankee” you can guess who leaned on the selection committee for that one, eh? But since our friends to the south pick up most of the tab for NATO who can blame them.

Letter Z: This one can be confused with some loose lips saying “C”. So use “Zulu” and make those warriors proud.

LES CARD, VE6CA, RECEIVES 75 YEAR AWARD

The Wildrose, Chapter 151, in Calgary, Alberta, hosted a special luncheon on November 22, 2012, for longtime member Les Card, VE6CA.

Les was presented with his 75 year award for actually being a licensed and active Amateur radio operator for 75 years.

This, in itself, is a significant achievement and Les, in his own words, stated that this luncheon meeting was a whole lot better than attending a viewing and listening to a eulogy.

The award was presented to Les by Ken Oelke, VE6AFO, President, QCWA Wild Rose Chapter 151.

Les, who is 93 years old now, brought along his wife, one of his sons and two of his daughters and a granddaughter to help him celebrate this event.

A very interesting and detailed description of his early life and service in the Royal Canadian Air Force was read to the crowd of Amateur Radio operators in the room by Dave Watson, VE6EH. Many of the attendees were amazed to learn that Les Card had been instrumental in the development of radar and the subsequent installation and use of this new technology by Air Force aircraft flying from bases in England. All this and more, from a young man who grew up in the Cardston area of southern Alberta and earned his Amateur Radio licence and call sign in 1937.

Congratulations to Les Card, VE6CA, from your friends, family and QCWA members.

Terry Finn, VE6TF – Wild Rose Chapter 151 Vice-President

“Zed” coming back at you from south of the 49th Parallel.

At my place of employment for the last nine years before retiring, I worked for several months with a young man who had been in the Canadian Navy’s communication’s branch at several postings. We got to talking about the NATO alphabet one long night on a drive up Vancouver Island and he was well aware of ham radio’s use of it. But the fact that many provinces had run out of VE call signs and now offered the VA prefix interested him also.

“From my personal experience, and given the choice, I would opt for VA over VE any time,” he said. “Especially when the going gets rough and there’s lots of noise on the bands.”. He had often monitored the ham bands when there was nothing else going on and made the final observation: “Listening to some Nova Scotia hams on DX bands it often sounded like they were IDing themselves as ‘WheeOne’ something, something. I can image the head shaking on the other side of the pond.” Ouch! But he had a point.

So, it’s as they say, a “two-way street” when it comes to voice communications. You take the time to enunciate and the dude or gal on the other end of a QSO will hopefully do the same. Any serious DXer or contesters can attest to hearing, over the years, many potential contacts going sour when somebody “blurted” when they should have “spoken”. Many.

Final suggestion, please. Even if you are a “well-known character” in your neck of the woods – and everybody knows your call sign – try using the NATO phonetic alphabet on your first check-in on any net. Old ears like mine will thank you for it.

ABOUT THE AUTHOR

Andy Neimers was licensed in 1989 and picked the call VE7FJT. The FJT turned into “the Friendly Jungle Telegraph” when he started writing his regular column on “the Amateur and the Internet” for The Canadian Amateur. That ran for five years and some 50 columns. He now operates as VA1FJT from Digby Neck, Nova Scotia and gets inspired to share his brand of “humour” now and then....

PUBLIC SERVICE / ARES

The reports this time provide an insight into a number of ARES group activities, especially those important topics of Planning and Exercise. Exercises are one of the best practical methods of preparing for a callout and they should be an integral part of every ARES group activities – and the Renfrew County (West) ARES Group has definitely made that an important part of their program.

Michael Hickey, VE3IPC, uses the recent example of Sub-Tropical Storm Sandy as a good example of the potential requirement for adjacent ARES groups to plan and work together in a “wide area” coverage situation.

Fred Orsetti, VE7IO and Marcy Lui, VE7JT, report on the Surrey BC ARES Group workshop held at the Surrey Kids Conference in May. What a great way to get the youngsters interested in a possible new hobby that can also provide a public service.

For anyone heading to the far north for a summer holiday, a map of the extensive coverage of the Yukon Repeater Network would be an indispensable piece of paper to carry in your vehicle.

Doug Mercer, VO1DTM, CEC – RAC Chief Field Services Officer

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The equipment station that AEC George Dionne, VE3GPD, used for voice and packet.

ARES GROUP PARTICIPATES IN A “NUCLEAR EMERGENCY PLAN” EXERCISE

Bob Howard, VE3YX
Emergency Coordinator
Renfrew County West (RCW)-ARES group

On November 1, the very day that sub-tropical storm Sandy was to pass near here, there was an exercise of part of the Laurentian Hills / Deep River Nuclear Emergency Plan.

The intent was to exercise the Municipal Emergency Operations Centre (MEOC) and the Joint Information Centre (JIC).

The scenario did not include the loss of normal communications; however, there were a few messages that were planned to be passed by Amateur Radio. RCW-ARES decided to extend the exercise a bit by adding a station at the Reception Centre (Deep River Arena) and at the Red Cross in Pembroke.

The Red Cross part was an easy addition since the Red Cross Representative on the Municipal Control Group (MCG) at the MEOC was Alan, VE3HTO, one of our ARES group, and the staff at the Red Cross in Pembroke were prepared to send messages to Alan.

All four locations were equipped with packet/voice stations running Outpost and VHF handhelds.

ARES member participants were: at the MEOC was Yvonne, VE3RYA and George, VE3GPD; at the JIC was Norm, VE3UE and Tony, VA3HWH; at the Reception Centre, was Chris, VA3CRL and Dom, VE3DGZ; at the Red Cross was AEC Richard, VA3BIX and Rob, VA3AGN, from RCW-ARES, and EC Ron, VE3JRN and AEC Jim, VA3JER from RCE-ARES.

For RCE-ARES members Ron and Jim, this was a first experience with Outpost and packet for emergency comms.

RCW EC Bob, VE3YX, floated amongst the three Deep River / Laurentian Hills sites. Alan, VE3HTO, had his Red Cross hat on, not his ARES hat, so he was the sender and receiver of messages.

One hitch with the exercise was that the people who were to staff the JIC never showed up so there was no one there for Norm and Tony to pass messages to. Since there was no plan to have anyone staff the Reception Centre, Chris and Dom also had no official messages to deliver or pass.

The JIC and Reception Centre groups just sent and received tactical messages to remind themselves of Outpost operation. The only exercise related messages that got passed were between the Red Cross and the MEOC. After the exercise, those of us that were in the Deep River / Laurentian Hills area participated in the debriefing held at the MEOC.

Prior to the exercise, Yvonne, VE3RYA and EC Bob, VE3YX, prepared a document that detailed the setup and use of Outpost specifically for our purposes. The document was made available at each of the four sites for this exercise.

As a result of the exercise, the document is under revision and will be posted on the Documents page of our website at <www.technifest.com/~rcares/forms1.htm>.

AEC George Dionne, VE3GPD, operating at the Point Alexander Emergency Operations Centre.

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Norm Gentner, VE3UE and Tony Hinds, VA3HWH (at right) at the Point Alexander Ice Rink Shack which was serving as the Emergency Information Centre.

Chris Lade, VA3CRL and AEC Dom Grosleau, VE3GDZ (at right) at the Deep River Arena which was serving as the Reception Centre.

As usual with Outpost, the message flow was quick and of course accurate. We had no problems with any of our operations.

We realize that the official exercises are too infrequent to keep us up to speed so we should plan to organize some of our own exercises. Meanwhile, Sandy passed by our area with no noticeable effect.

SUB-TROPICAL STORM SANDY: A WAKEUP CALL

Michael Hickey, VE3IPC
Ontario East Section Manager

The end of October 2012 brought us the powerful and devastating tropical storm Sandy that totally destroyed some areas and greatly damaged many other areas in the Northeastern USA, and that also reached into Ontario in a much more weakened state than previously anticipated.

Many Amateur Radio stations in the more severely affected areas lost their ability to be on the air for weeks if not longer primarily on the HF bands.

Many ARES groups lent coordinated support to each other in order to provide much needed EmComm service. This was provided to those municipalities that were in need of emergency radio communications to help in their local coordination of their state of emergency when normal communications were limited or out.

The US ARES takes very seriously EmComm preparations for severe weather events – more so than we do – because they get hit much more often and harder than we do in Ontario and their clients do hold them to task.

The predictions now are that we may see this type of severe weather system more often now due to what is being referred to as “climate change”. We need to learn from the US ARES experience and their lessons learned from Sandy, and we really need to exercise our mutual aid plans for ARES as a District.

Now in the early spring season this is a great time to exercise this in earnest! We also need to work on our personal backup emergency radio communications strategy at the home so that we can be on the air after the severe weather system has passed us by, which may have taken down our personal communication antennas and towers and not just Hydro.

I hope that this severe weather incident serves as a real wakeup call to all ARES groups and to all Amateur Radio clubs in Ontario because the worst scenario can happen and yes, can even happen here in the weather calm Ontario Section.

We were very lucky as you may recall, when at first Environment Canada had predicted much more severe damaging winds for our regions, nonetheless there were some antenna damages in our regions.

We need to have united ARES EmComm groups District-wide to plan together for the worst and of course hope for the best. If we are serious about serving our municipal clients and NGOs like the Red Cross and the Salvation Army in times of great need, we need to prepare now and to exercise, exercise and to exercise yet again. They may need to depend on your promised EmComm capabilities, a promise that every ARES groups needs to take seriously, so you need to be prepared as a group yes, and also as individual members.

Let me end here by saying thank you, to each and every ARES member and to all the Amateur Radio clubs that are giving support to their local ARES group.

"TRANSPORTATION ACCIDENT EXERCISE DELTA XI"

Bob Howard, VE3YX
Emergency Coordinator
Renfrew County West (RCW)-ARES group

EC Bob Howard, VE3YX, was invited to observe an Atomic Energy of Canada Limited (AECL) exercise "Transportation Accident Exercise Delta XI", which was conducted on November 23.

It was described as follows:

"This is a full-deployment type exercise where the Emergency Operations Centre (EOC) will be activated and Chalk River Laboratories (CRL) resources dispatched to respond to a simulated off-site transportation accident involving radioactive material. This exercise is designed to test our plans and the response capabilities of our various response groups on site, as well as an opportunity to engage our external stakeholders in a full scale exercise."

The stakeholders mentioned were the Ontario Provincial Police, County EMS, Deep River Fire and Laurentian Hills Fire.

The accident scene was set up behind the Chalk River Fire Hall.

- There was a 5-ton truck on its side with barrels simulating radioactive materials that had spilled out of the truck in the accident.
- There was a half-ton truck that had hit the back of the truck and the driver was trapped in the half-ton.
- There was a small car with four passengers that had hit the front of the truck. The victims were quite well made up with injuries.

The Pembroke newspaper, "The Daily Observer", published an article on this exercise and it can be found at the following link:

<www.thedailyobserver.ca/2012/11/24/mock-disaster-training>

EC Bob Howard, VE3YX, was quite impressed with the quality of the responses from the various agencies.

There was no ARES involvement as normal communications were not affected by the incident.

AECL and RCW-ARES have met about installing VHF equipment in their Emergency Operations Centre at Chalk River and in their RAT mobile (Radiation Assessment Team).

ALBERTA EMERGENCY MANAGEMENT AGENCY SUMMIT

On November 19 & 20, Alberta Emergency Management Agency held their annual Stakeholder Summit in Edmonton.

ARES Emergency Coordinators from all the Alberta groups are invited to attend this yearly event that is rotated between Edmonton and Calgary.

The Stakeholder Summit provides ARES groups with the opportunity to take in numerous seminars related to emergency management and disaster preparedness.

This year we had the following individuals in attendance:

- Curtis Bidulock, VE6AEW – ARES SEC Alberta
- Doug Howard, VE6CID – ARES DEC Southern Alberta
- Greg McKinney, VA6GMC – ARES AEC Red Deer

The above photo shows (from left):

Greg McKinney, VA6GMC; Colin Lloyd – AEMA Managing Director; Doug Howard, VE6CID; Curtis Bidulock, VE6AEW; John Conrad – AEMA Executive Director – Provincial Operations

Submitted by Curtis Bidulock, VE6AEW
RAC Section Emergency Coordinator
ARES Alberta

BRANDON ARC WINS FIRST PLACE FOR BEST DECORATED CAR

On Saturday November 17, 2012, the Brandon Amateur Radio Club won a first place plaque for the best decorated car in the Brandon Santa Claus Parade of Lights in Brandon, Manitoba.

The car, a 1967 Ford Fairlane, was decorated by Rick Jones, VE4AV, the driver, and George Moore, VE4MSM.

A system was devised so the lights would flash to Morse Code, the key being operated by Charley Bailey, VE4LB, from inside the car on the parade route.

Recorded Christmas music and Christmas greetings in speech as well as CW were also delivered to the crowds by a Public Address (PA) system and speakers mounted on the roof.

A good evening was enjoyed by the three of us.

Submitted by George Moore, VE4MSM and Rick Jones, VE4AV

SEPAR AT THE SURREY KIDS CONFERENCE

Fred, VE7IO and Marcy, VE7JT

SEPAR (Surrey Emergency Program Amateur Radio) presented an Amateur Radio Community Workshop at the Guildford Recreation Centre on May 5, 2012 to kick off “Emergency Preparedness” week in Surrey, British Columbia. We had the pleasure of working with Alex of Surrey Parks & Recreation who is also a Surrey Emergency Social Services volunteer. Alex thought the Surrey Kids Conference might be a good fit for SEPAR and she forwarded the information to us.

SEPAR submitted a workshop proposal application form for the Surrey Kids Conference on May 11, 2012. On June 12 we received word our workshop proposal had been reviewed and accepted by the Surrey Kids Conference planning committee. The Surrey Kids Conference was to take place at the Fleetwood Community Centre on November 17.

The objectives for SEPAR in this workshop with the Surrey Kids Conference (SKC) were to:

- To provide three 30 minute workshops involving 30 children in each group with a theme of emergency communications. Children in groups aged 6-8, 9-10 and 11-12.
- To use our workshop to support this year’s theme of “children’s rights”
- To demonstrate how Amateur Radio would be used in case of a failure of commercial services such as cellphones, the Internet and power failures.

In order to meet these objectives, SEPAR members contributed many volunteer hours preparing scenarios, meeting with Surrey school teachers and SKC team leaders.

Scenarios were written then rehearsed and then re-written in order to present a scenario that would cover all the ages of the three groups – approximately 90 children in total.

Care was taken to ensure that the scenario would be realistic and make all the children aware of the potential need for communications and how Amateur Radio could be used. We had to make sure that the younger children would know that we were play acting and this situation was not real; but that it could be.

This workshop was very different from our past workshops with schools, libraries and museum in that the time with the children was very short and we had to highlight emergency communications and children’s rights. In order to do this we changed the format from the five post workshops we have done in the past to a single communications event. Each group of 30 children was split into two groups of 15 in each of two rooms. The 15 children in each room were then broken into groups of five and sat at three tables with a radio operator.

Each of the three tables in the two rooms had a radio tuned to a different UHF frequency able to communicate between rooms in a preset format.

The first objective was met by having the SEPAR coordinator do a five-minute introduction to each complete group before the children were split into the two groups.

Following the introduction the children were split into two groups and organized at each of the three tables and the mock exercise began. The scenario was a severe weather event. One room was the event site and the other room was the Surrey Emergency Operations Centre.

At the end of the 15-minute communications event the children were assembled in one room for questions and information.

The design of the workshop was good, however given the range in ages of the children, the scenario was too short for all but the very youngest children.

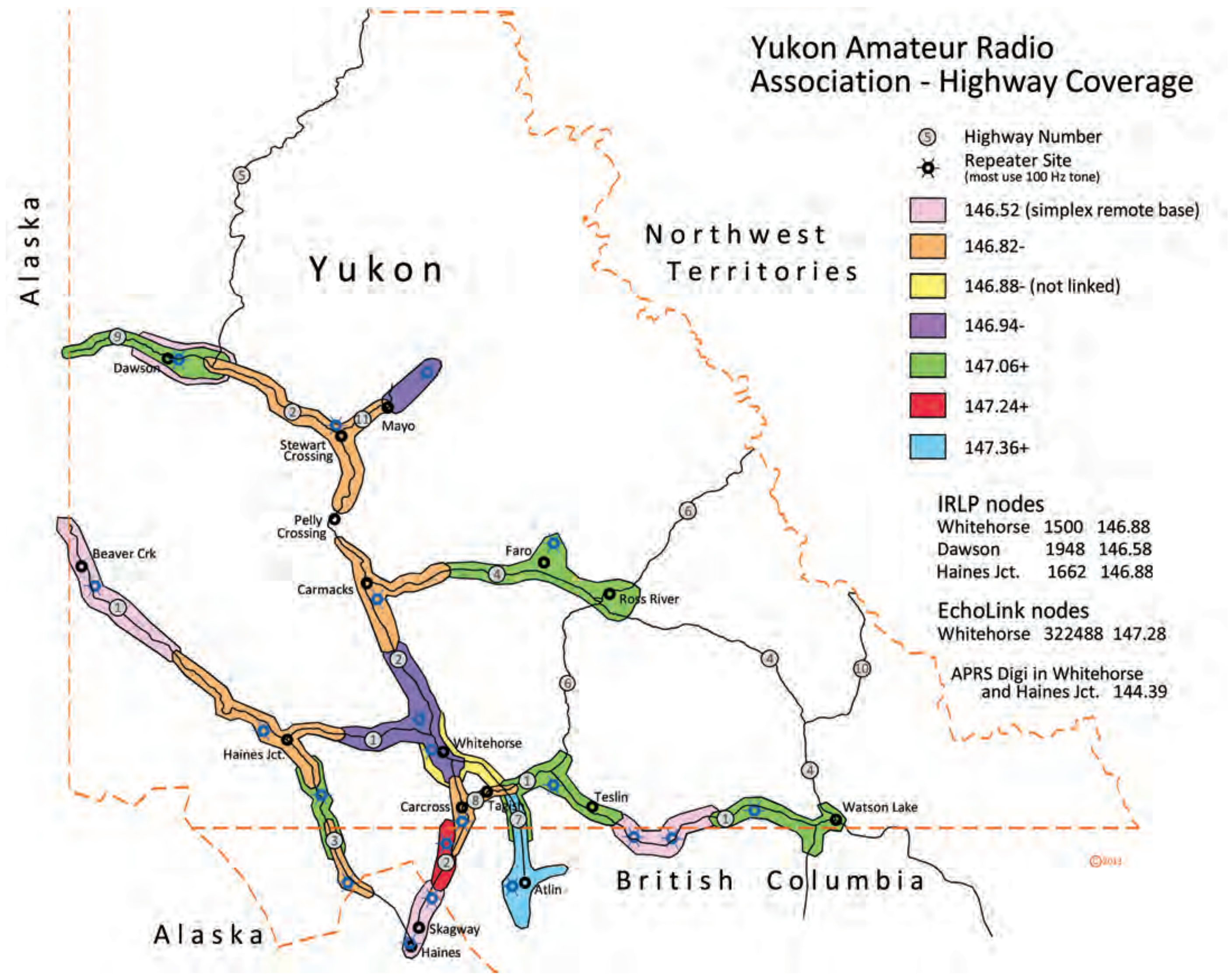
The older children completed the exercise in approximately half the allotted time, seven minutes instead of the 15-minute schedule. This possibility was anticipated and each radio operator had a list of questions that could be used to fill the time.

The questions were asked using the radio between rooms and this was very successful. As well as the addition of the question and answer sheet, Amateur Radio crossword puzzles were prepared. Happily, not one participant used the crossword puzzle to fill in time so we can assume that, even for the older children, the communications scenario and the Q & A session provided interest.

We kept the scenario simple but realistic and this worked very well.

The theme “children’s rights” most likely covered many areas throughout the workshop and we pointed out that in Canada we have the right to use the airwaves, which is not the case in all countries in the world.

In the wrap-up the children were made aware that we had just demonstrated the rights we have in our country to



YUKON AMATEUR RADIO ASSOCIATION HIGHWAY COVERAGE

The Yukon Amateur Radio Association provides extensive coverage of the major highways in the Yukon through their repeater network. In addition normal repeater traffic they have added IRLP Nodes, EchoLink and APRS Digipeaters. The above map provides an overview of this coverage. I only hope that those who use this system realize not only the value, but the hard work, dedication and teamwork that goes into maintaining a system such as this in the Yukon environment. While there are many linked repeater systems the weather, mountain top locations and isolation make this system a one of a kind. My thanks to all those involved and a sincere thank you for your efforts. A colour version of this map can be found on the YARA website at: http://yara.ca/repeaters/repeaters.htm

Paul Giffin, VA7MPG – RAC British Columbia / Yukon Section Manager

freely communicate. This was a good demonstration of our freedom and for future workshops we should expand on this.

We are sure we successfully demonstrated how Amateur Radio may be used to communicate in cases of emergency. The children were given a considerable amount of written information about the Surrey Emergency Program and together with our hands-on demonstration, the children and the parents should have a basic understanding of how communications would be handled in an emergency.

The SEPAR Amateur Radio Community Workshop at the Surrey Kids Conference provided public awareness of Amateur Radio and Amateur Radio Emergency Communications, member training and it builds working relationship within SEPAR members and other Surrey Emergency Program responders we may work with in an emergency.

SEPAR radio equipment used at the Surrey Kids Conference were SEPAR Grab N Go kit, SEPAR member radios and two ICOM U82's donated by ICOM Canada, a supporter of SEPAR Amateur Radio Community Workshops.

SEPAR members:

Kelvin, VA7KPH (Coordinator); Don, VA7GL; Brett, VE7GM; Jay, VA7OFH; Ron, VE7VTA; Walter, VE7SM; Peter, VE7PGX; Dixie, VA7DIX; Kapila, VE7KGK; Rob, VE7CZV; Kjeld, VE7GP; Angus, VE7CQU; and Fred, VE7IO and Marcy, VE7JT (SKC Team Leaders).

Assisted by: Linda and Pamela

RAC CANADA DAY CONTEST 2012 RESULTS

Bart Ritchie, VE5CPU and Sam Ferris, VE5SF

As with last year, we were fortunate enough to have Canada Day fall as part of a weekend. This generally adds to the level of activity for the contest and despite it happening in the middle of the long weekend we saw overall participation up 20% this year.

This is a nice increase, but when you look at the breakdown, Canadian participation was flat while US and DX were up significantly, 33% and 54% respectively. There was a bit of chatter in the soapbox about the challenges Europe had in working Canadians.

That was the good news. The bad news was that many reported poor band conditions. As noted above, it was especially noticeable from Europe. The results bear that up. For the second year running there were no new records in any categories.

I also noticed an increase in the number of casual entries; we were up to 56% of logs that had 100 or less QSOs. Despite that, those who participated expressed that they had a great time sharing our 145th birthday celebration on the air.

With that bit of introduction, on with the detailed results!

SINGLE OP ALL BANDS HIGH POWER

Rick Williams, VE9HF wins the SOABHP plaque sponsored by Radioworld with a score of 533,722. David Weiner, VE3RTU, takes second place this year with a score of 459,998 and Paul Newberry, Jr. takes third place finish this year with a score of 424,682. Paul also takes the Larry Kayser, VA3LK Memorial Plaque sponsored by Alan Goodacre, VE3HX, for the Top Scoring Single Operator's Foreign Entry – any authorized power.

SINGLE OP ALL BANDS LOW POWER

Nick Lekic, VE3EY, piloted his station to a first place finish in the SOABLP category and takes the plaque sponsored by Contest Club Ontario with a score of 246,840. Sylvan Katz, VE5ZX, takes second place this year with a score of 165,232. Third place goes to Jay Corriveau, W1UJ, with a score of 156,672.

SINGLE OP – QRP

The QRP battle brought all new players to the top three with James Davisdon, VA3WR, taking the first place plaque in the SOABQRP category sponsored by QRP Canada with a score of 89,280. Second place goes to David Stephenson with a score of 54,834. Third place goes to Steve Pocock, VE7GTU, with his score of 39,508 points.

SINGLE OP ALL BAND PHONE

Ed Richardson, VE4VT, moved into first place this year capturing the SOABPH plaque sponsored by the Saskatchewan Contest Club with a score of 212,190. Alexander Sherman, W6AFA, takes second place with a score of 76,866 and Patrick Briggs, K6AAX, takes third place with a score of 70,092

SINGLE OP ALL BAND CW

Michael J. Wetzel, W9RE, takes first place with a score of 155,144 capturing the SOABCW plaque sponsored by the Maritime Contest Club. Second place goes to Ralph Parker, VE7XF, with a score of 131,820. Gary Bartlett, VE1RGB, rounds up third place using the call VE1RAC with a score of 70,848.

SINGLE OP SINGLE BAND

Twenty metres continues to be the main band for those in the SOSB category and once again produced the top three scores in this category. Gary Caldwell, using the call XM7SZ, takes the top spot and captures the SOSB plaque sponsored by Elkel Products with a score of 156,300.

A FEW STATISTICS

Logs submitted:	**573**
Canada:	**201**
US:	**195**
Other countries:	**177**
Total QSOs:	**94,722**
Email entries:	**550 or 96%**

Cary Rubenfeld, VE4EA, takes second place with a score of 99,888 using the VE4RAC call. Our top three rounds out with Curlic Vladan, YT1A, with a 62,480 point tally.

The complete listing shows the band by band breakdown and power levels for those who like to keep track of that element of SOSB even though it is not an official part of the contest format.

This category was our most popular one for a third year running attracting 150 entries and edging out SOABCW by three entrants for the most participants in a category.

PLAQUE WINNERS

Single Operator All Bands High Power
Sponsored by Radioworld
Rick Williams, VE9HF, with a score of 533,722

Single Operator All Bands Low Power
Sponsored by Contest Club Ontario
Nick Lekic, VE3EY, with a score of 246,840

Single Operator All Bands – QRP
Sponsored by QRP Canada
James Davidson, VA3WR, with a score of 89,280

Single Operator All Band Any Authorized Power Phone
Sponsored by Saskatchewan Contest Club
Ed Richardson, VE4VT, with a score of 212,190

Single Operator All Band Any Authorized Power CW
Sponsored by Maritime Contest Club
Michael J. Wetzel, W9RE, with a score of 155,144

Single Operator Single Band Any Authorized Power Level
Sponsored by Produits Electronique Elkel Ltee
Gary W. Caldwell, VA7RR, operating as XM7SZ with a score of 156,300

Multi-Operator Single Transmitter High Power
Sponsored by Alfa Radio
Gordon Kosmenko, VE6SV, with a score of 499,028
Ops: VE6SV, VE6RST, VE6TL, VE6PIG & VE6MRT

Multi-Operator Single Transmitter Low Power
Tony Allsop VE3FTA Memorial Sponsored by Mississauga ARC
Greg Osmond, VA3GKO, with a score of 332,280
Ops: VA3GKO, VE9BK, VE9ML

Multi-Operator Multi Transmitter Any Authorized Power Level
Sponsored by Radioworld
Calgary Amateur Radio Association, VE6AO, with a score of 537,240
Ops: VE6TC, VE6KC, VE6AMR, VE6STP, VA6DBA, VA6FMH, VA6MCB & SP9FKQ

Top Scoring Single Operator Foreign Entry
Larry Kayser, VA3LK Memorial Plaque sponsored by Alan Goodacre VE3HX
Paul H. Newberry, Jr., N4PN, with a score of 424,682

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QUARTER CENTURY WIRELESS ASSN., INC.

MULTI-OPERATOR SINGLE-TRANSMITTER HIGH POWER

Gord Kosmenko, VE6SV and the Sierra Victor Contest Team is taking up residence in this category, repeating their win over the last several years taking first place in the MOSTHP category. They capture the Alfa Radio sponsored plague with a score of 499,028. The team was made up of VE6SV, VE6RST, VE6TL, VE6PIG and VE6MRT. Nice job lads! Victor Petcherkin, N8OO, along with RX9SX/W5, takes second place with a score of 405,406. The Monkey Lovers Radio Consortium, K6MMM, takes third place this year with a score of 350,668.

MULTI-OPERATOR SINGLE-TRANSMITTER LOW POWER

Greg Osmond, VA3GKO, takes first place this year with a score of 332,280 capturing the MOSTLP Tony Allsop – VE3FTA Memorial plaque. The team this year was made up of VA3GKO, VE9BK and VE9ML. Victor Androsov, VA2WA takes second place this year with a score of 236,676 and Gabor Horvath, VE7CVA takes third place with a score of 201,760.

MULTI-OPERATOR MULTI-TRANSMITTER

The Calgary Amateur Radio Association, VE6AE, takes first place this year in the MOMT category, taking the plaque sponsored by Radioworld with a score of 537,240. Club Radio Amateur de Québec pilots the VA2RAC call to a second place finish with a score of 307,392. Our third place finish goes to the Hamilton Amateur Radio Club Contest Group, VE3DC, with a score of 280,016.

RAC CANADA DAY CONTEST RECORDS (updated with 2012 results)

CANADIAN RECORD SCORES

Call	Category	QSOs	Mults	Score	Year
VE3EJ	SOABHP	1513	118	1,243,956	2008
VE5SF	SOABLP	884	95	658,540	1999
VE3KZ	SOABQRP	468	79	309,048	2002
VA7RR	SOSB*	1531	25	233,150	1999
VE6JY	SOABPH	906	55	421,850	2007
VA2WDQ	SOABCW	820	48	189,216	2010
VE6AO	MOSTHP	1092	76	526,984	2008
VE3MIS	MOSTLP	867	73	379,200	2007
VE6JY	MOMT*	2671	119	1,898,764	1999

*The official category does not have a power class designator.

***No new records in 2012**

CANADIAN SINGLE BAND RECORD SCORES

Call	Category	QSOs	Mults	Score	Year
VE3VZ	SOSB - 144	66	3	2,046	2005
VE3FIT	SOSB - 50	43	6	2,364	1998
VE1CZ	SOSB - 28	183	9	7,128	1997
VE6JY(opVE5MX)	SOSB - 21	957	20	72,800	2001
VA7RR	SOSB - 14	1531	25	233,150	1999
VE3TA	SOSB - 7	612	20	68,800	2009
VE3BY	SOSB - 3.5	447	15	64,800	1997
VE3DO	SOSB - 1.8	82	18	11,412	1996

No new single band records in 2012

TOP SCORING SINGLE OPERATOR – FOREIGN ENTRY

As noted in the SOSBHP results, Paul Newberry, Jr., N4PN, piloted his station to the highest placing single operator from outside Canada with a score of 424,682. This earns him the Larry Kayser, VA3LK Memorial Plaque sponsored by Alan Goodacre, VE3HX.

We appreciate all the Cabrillo-formatted logs, but encourage you all to check to make sure all the pertinent information is correct in the Cabrillo headers. Not all of you are getting the correct entry classes entered in the header due to limitations in your software. Please make sure you are using the most current version available.

The RAC Contest Management team continues to get the results out as quickly as possible with as much accuracy as we can. In the event we have let any errors in, please accept our apologies and be assured we will be happy to correct any problems that are identified and publish any updates on the RAC website.

CANADA DAY CONTEST 2013

The contest managers look forward to the contest and to hope to see increased participation during the 2013 running of the Canada Day Contest, which is scheduled for July 1, 2013, a Monday this year, a great way to spend part of the Canada Day holiday weekend – at least for those of us in Canada!

The RAC website at <http://www.rac.ca/en/rac/programmes/contests/> has all the contest rules and entry forms.

There are many commercial and other free programs that support the RAC contests. With at least two free programs to do the logging, we encourage you all to take advantage of this and submit electronic entries.

A Cabrillo-formatted electronic log submission really helps to manage the work to compile the contest results. Although we encourage electronic logs, we will continue to accept paper logs for small entries (less than 100 contacts).

If you are not submitting a Cabrillo log, we ask that those entrants include a summary sheet providing the required information and, where possible, a breakdown of VE, RAC and DX contacts as well as the multiplier total. This will make compiling and checking of logs a bit easier and aids to a quicker turnaround of the results.

As a reminder, when submitting email entries, please make the subject line meaningful. Our preference is "Call – Category – RAC Canada Day". For example: "VE5CPU – SOABHP – RAC Canada Day".

To those who participated in 2012, THANKS and we hope you enjoyed the event! Good luck in the 2013 RAC contests.

– 73, Bart, VE5CPU and Sam, VE5SF

SINGLE OP ALL BANDS HIGH POWER (SOABHP)

Call	Score	CDN	RAC	DX	QSOs	Mult	
VE9HF	533,722	532	28	1043	1603	67	**
VE3RTU	459,998	403	28	692	1123	77	*
N4PN	424,682	494	24	771	1289	61	*, #
VE3CX	424,536	516	21	934	1471	57	
W1C	368,318	351	22	1044	1417	61	*
VA3AR	175,112	217	19	377	613	53	
K4BAI	138,368	201	16	339	556	46	
VO2RAC	123,180	287	11	508	806	30	*
NF4A	114,554	203	15	232	450	41	
NR1X	112,950	164	14	295	473	45	
VA5LF	92,608	196	7	397	600	32	*
N2KW	87,514	140	13	101	254	47	*
VO1UL	80,184	156	23	18	197	39	
W6SX	75,672	158	9	171	338	36	*
VO1RAC	69,120	139	11	275	425	32	
W5WMU	64,896	128	7	304	439	32	*
VE3TW	63,504	131	12	107	250	36	
VE7GTC	59,592	175	11	161	347	26	*
K7IA	52,432	115	13	199	327	29	
ND3R	44,460	67	20	35	122	39	*
N4BCB	42,540	106	6	119	231	30	
K0VXU	29,762	105	12	2	119	23	*
VE2EZD	29,538	71	8	112	191	27	*
N2BJ	26,892	72	9	48	129	27	*
NT6X	26,298	66	6	97	169	27	
VE3SSR	22,256	62	4	78	144	26	
N5UI	18,720	57	7	35	99	24	
WA6URY	16,600	48	4	52	104	25	
AI4WW	13,328	61	3	57	121	17	
VA6AK	11,040	45	7	50	102	16	*
VE260AEJ	7,502	51	3	56	110	11	
VE3LFA	7,168	31	5	19	55	16	
K4IU	6,432	34	2	11	47	16	
DL0UM	4,180	32	1	20	53	11	*
XE1V	4,060	24	2	5	31	14	*
VE3AD	3,960	24	3	15	42	12	
WG7Y	2,976	17	2	19	38	12	*
VE3ZW	2,442	11	5	6	22	11	
PA1T	1,782	16	1	9	26	9	*
VE2DC	1,780	12	2	9	23	10	
EW1BA	1,288	10	3	12	25	7	*
VO1NA	840	10	2	0	12	6	

(#) Top Scoring Single Operators Foreign Entry – any authorized power
Larry Kayser, VA3LK Memorial Plaque sponsored by Alan Goodacre VE3HX

SINGLE OP ALL BANDS LOW POWER (SOABLP)

Cal	Score	CDN	RAC	DX	QSOs	Mult	
VE3EY	246,840	276	22	457	755	60	**
VE5ZX	165,232	246	9	476	731	46	*
W1UJ	156,672	208	21	382	611	48	*
VE1AL	134,592	195	11	317	523	48	*
VE3FZ	120,960	185	7	265	457	48	
VE2JCW	117,406	141	19	354	514	47	*
VE3GFN	100,350	151	13	230	394	45	
WN6K	97,384	200	13	186	399	37	*
W1NN/8	94,140	152	12	166	330	45	*
VE3JI	88,984	150	6	98	254	49	
VE3USP	87,172	148	14	298	460	37	
VE3CV	86,848	137	15	109	261	46	
VE2AWR	76,362	169	11	202	382	33	
VE3CWU	75,150	106	23	75	204	45	
VO1GO	71,400	130	11	90	231	42	*
VE4YU	68,388	124	11	104	239	41	*
WA2JQK	53,844	85	11	106	202	42	*
K4DJ	50,282	113	12	126	251	31	*
VA3JI	39,996	88	12	46	146	33	
VE3XT	35,586	101	8	74	183	27	
NF8M	34,684	82	8	108	198	29	
WD0ECO	33,432	84	9	87	180	28	*
VY2MP	28,880	115	6	125	246	19	*
VE3RCN	27,144	65	7	73	145	29	
VE1WOW	26,044	116	6	126	248	17	
VE9OA	22,862	67	7	92	166	23	*
K8GT	22,120	55	8	40	103	28	
W2LK	21,808	52	7	46	105	29	
N7VS	20,448	52	8	86	146	24	*
WB4M	20,100	53	7	0	60	30	
VE2QY	19,550	55	6	56	117	25	
KD6WKY	19,446	73	7	28	108	21	
K0HB	17,520	59	8	63	130	20	
W6NF	16,254	39	8	26	73	27	
WR9Y	15,360	52	6	0	58	24	*
VE7NA	14,952	53	4	51	108	21	*
KD8GOX	13,272	52	5	6	63	21	
AF5CC	13,120	63	5	45	113	16	*
W2LE	12,312	41	5	69	115	19	
W8KNO	12,200	49	6	0	55	20	
VE3SPF	12,180	68	4	26	98	15	
VE6AX	11,760	41	6	15	62	21	*
N0AX	11,476	43	7	17	67	19	
VA2RIO	11,196	43	8	16	67	18	
VE1LS	9,120	36	5	10	51	19	
VA6RP	6,944	31	3	32	66	16	
VE2FAB	6,890	36	2	65	103	13	
VE3DMR	6,420	32	5	4	41	15	
VE2XL	6,188	31	6	23	60	13	
EA8AQV	5,628	23	5	36	64	14	*
VE6ZC	5,024	23	2	22	47	16	
VE5AAD	4,944	24	6	26	56	12	
VE3CNA	4,700	33	6	10	49	10	
VE3TLY	4,248	24	5	7	36	12	
W9WLX	4,212	25	1	27	53	13	
VE6KG	3,640	19	4	5	28	13	
AD1L	3,510	23	2	0	25	13	
K2TV	3,500	19	3	0	22	14	
VY2RB	3,152	28	0	57	85	8	
RG5A	2,880	14	1	100	115	8	*
K2HT	2,712	20	1	3	24	12	
K6CSL	2,464	22	1	34	57	8	
K8FZY	2,310	14	2	15	31	11	
VE7IHL	2,070	13	3	20	36	9	
DK4WF	470	4	2	7	13	5	*
F6ACV	448	8	1	6	15	4	*
VA3FN	240	10	0	10	20	2	
VE7SJW	108	0	2	7	9	2	
ON3ND	74	1	0	32	33	1	*

SINGLE OP ALL BANDS QRP (SOABQRP)

Call	Score	CDN	RAC	DX	QSOs	Mult	
VA3WR	89,280	141	17	117	275	45	**
VE3PYG	54,834	96	15	73	184	39	
VE7GTU	39,508	73	9	126	208	34	*
KS4X	37,520	99	13	45	157	28	*
W4UT	27,594	93	12	72	177	21	
N8XX	22,656	69	9	37	115	24	*
K8ZT	17,108	44	7	39	90	26	
WA8REI	16,218	64	7	87	158	17	
N9BT	15,504	50	4	33	87	24	*
VE3XTI	11,200	52	6	30	88	16	
VE7BQO	9,420	41	5	59	105	15	
VE3SMA	6,150	26	4	35	65	15	
W2WGK	3,360	18	5	0	23	12	*
VE5BCS	950	12	3	5	20	5	*

SINGLE OP ALL BANDS SSB ONLY (SOABPH)

Call	Score	CDN	RAC	DX	QSOs	Mult	
VE4VT	212,190	442	15	855	1312	33	**
W6AFA	76,866	248	13	301	562	23	*
K6AAX	70,092	168	8	378	554	27	
VA6UK	67,200	204	8	300	512	24	*
VE3TU	56,200	182	8	134	324	25	*
AC5O	53,240	183	8	336	527	20	*
VE7WJ	44,616	174	3	114	291	22	*
VE3XRA	41,964	130	9	67	206	26	
W9QL	38,688	119	9	121	249	24	*
VA3SWG	38,350	121	8	82	211	25	
VO1TX	37,400	143	7	65	215	22	*
VE5FX	33,516	197	6	152	355	14	*
VE3ESE	32,904	216	4	251	471	12	
VA3NPL	31,970	98	9	115	222	23	
K5DHY	28,352	145	9	71	225	16	
VE1ZD	24,120	114	5	184	303	15	*
W1PL	23,940	90	7	110	207	19	*
VE2CJR	22,860	103	6	60	169	18	*
VA3QV	22,308	67	8	14	89	26	
VA3TPS	21,840	81	9	51	141	20	
VO1DJT	20,570	93	7	70	170	17	
VE7BFC	19,890	72	7	155	234	17	
YO3CZW	19,410	77	4	222	303	15	*
NT2I	18,312	70	5	36	111	21	*
VA3TVW	17,920	95	5	35	135	16	
VE6LE	16,354	61	8	96	165	17	
VE3GBY	12,864	57	8	37	102	16	
VE5DLM	12,864	75	4	121	200	12	
G3VAO	11,480	59	6	55	120	14	*
KB4CP	10,998	60	6	63	129	13	*
VE3VMJ	10,080	40	9	25	74	16	
VA3GD	10,048	44	3	64	111	16	
VE9REB	9,184	46	4	17	67	16	*
VE3MEW	8,856	38	4	16	58	18	
VE7ZZF	8,704	39	5	11	55	17	
AC8JF	8,288	37	6	14	57	16	

VA7HZ	7,632	26	6	22	54	18	
VE9MY	7,264	29	7	12	48	16	
VE3SWS	7,140	33	5	23	61	15	
KF0F	6,960	44	7	0	51	12	*
NX8G	6,748	31	7	16	54	14	*
K5HM	6,580	37	5	0	42	14	
AB7LA	6,510	30	6	7	43	15	*
VA3WU	6,240	30	4	50	84	13	
K7XE	6,160	34	5	0	39	14	
VE1BZI	6,090	27	6	8	41	15	
K4AMQ	5,434	31	4	14	49	13	
K2DSL	5,304	29	5	9	43	13	
VE1PQ	5,252	30	3	22	55	13	
VE3AR	5,070	24	6	15	45	13	
VE9LMN	5,044	28	3	24	55	13	
VE6KAD	4,950	31	3	40	74	11	
WA1DRQ	4,446	23	5	6	34	13	
VA3PC	4,290	27	5	10	42	11	
PY2SHF	3,660	26	4	13	43	10	*
VE3ZUO	3,542	22	4	11	37	11	
VA3PAW	3,080	20	3	24	47	10	
VE6SLP	3,020	12	6	31	49	10	
VA2BS	2,838	19	3	4	26	11	
PY5PDC	2,574	16	3	7	26	11	
KF5KHS	2,340	17	4	5	26	9	
VA3TPV	2,320	23	2	10	35	8	
VA3EEB	2,142	13	4	14	31	9	
N4BFR	1,900	13	3	0	16	10	
DG1EA	1,808	11	3	28	42	8	*
W2AJW	1,536	10	4	6	20	8	
W5CYF	1,484	16	2	6	24	7	
CT2JBG	1,440	14	0	10	24	9	*
KC4EZN	1,360	11	2	10	23	8	
WU6W	1,332	13	3	16	32	6	
AK4PE	1,280	12	2	0	14	8	
W9YB	860	13	1	11	25	5	
N0LVA	776	15	1	12	28	4	
K7TYF	720	9	0	15	24	6	
K2AVI	580	6	1	18	25	5	
W7KAM	560	8	1	6	15	5	
K7KFB	410	4	1	11	16	5	
VE7SM	288	6	0	6	12	4	
VE6HWE	240	4	0	20	24	3	
OH6ECM	222	3	1	12	16	3	*
VA7ANI/MM	160	11	2	5	18	1	
OK2BEN	124	3	1	6	10	2	*
VA2UTC	80	0	0	20	20	2	
PA8KM	66	0	0	33	33	1	*
VE9WRS	34	3	0	2	5	1	

SINGLE OP ALL BANDS CW ONLY (SOABCW)

Call	Score	CDN	RAC	DX	QSOs	Mult	
W9RE	155,144	238	22	394	654	43	**
VE7XF	131,820	211	15	485	711	39	*
VE1RAC	70,848	175	8	357	540	27	*
N4DW	68,736	137	15	239	391	32	*
VE3OSZ	67,456	139	10	293	442	31	*
VE7JKZ	62,060	131	12	295	438	29	
NS9I	59,700	135	10	220	365	30	
VE3KAO	59,384	150	8	312	470	26	
F5IN	58,856	118	11	351	480	28	*
VE4AEO	57,904	127	12	279	418	28	*
K4LTA	54,950	163	6	224	393	25	
VA7ST	53,900	123	7	393	523	25	
N4GG	53,730	143	8	200	351	27	
NW2K	51,576	117	10	236	363	28	*
VA3ATT	49,560	110	13	205	328	28	
WB8JUI	49,242	115	11	164	290	29	*
VA7KO	47,792	108	8	204	320	29	
W6AEA	45,000	113	11	225	349	25	*
VE3XL	37,996	102	9	226	337	23	
K9OM	36,134	82	12	93	187	29	
VY2SS	33,474	99	6	242	347	21	*
N9AUG	31,872	87	10	129	226	24	
KI0I	30,992	86	11	56	153	26	*
K1GU	30,912	93	6	119	218	24	
AE1T	28,176	79	5	142	226	24	*
VE3KL	24,768	93	10	209	312	16	
VE7SQ	23,868	83	6	188	277	18	
VE3FH	23,368	63	8	113	184	23	
K4ORD	23,300	62	8	76	146	25	
VE3FJ	23,104	73	7	173	253	19	
NG7Z	20,786	72	6	127	205	19	
VE7IO	20,448	61	4	223	288	18	
NT2DR	20,230	77	6	150	233	17	
VE3OM	18,720	48	9	60	117	24	
VE3LC	18,544	61	6	123	190	19	
W2CS	18,200	57	10	70	137	20	
VE3XB	17,272	67	2	153	222	17	
AF4OX	17,080	65	3	72	140	20	
K6LRN	16,834	65	7	48	120	19	*
VE1NB	16,044	67	5	188	260	14	
K2LE	15,674	63	7	76	146	17	
N6AR	15,456	66	6	93	165	16	
KI1U	14,850	64	7	105	176	15	
VE3MM	14,630	44	4	125	173	19	
NM5M	13,710	63	4	102	169	15	*
AA8IA	12,806	43	6	62	111	19	
WG0M	12,768	55	5	74	134	16	
N2UU	12,036	46	5	74	125	17	
VE3/K2NV	11,872	47	3	106	156	16	
VE2FK	11,820	48	6	94	148	15	*
VE4SN	11,096	44	5	22	71	19	
KE0G	10,640	58	6	30	94	14	
VA3SB	10,560	42	4	80	126	16	
KG3W	10,370	39	5	60	104	17	*
N2WN	10,140	48	5	48	101	15	
KR2AA	10,052	36	6	119	161	14	
W1TO	10,050	39	5	90	134	15	
K3HX	9,888	46	3	49	98	16	
K1IMI	9,464	46	4	94	144	13	
N7MAL	8,928	47	1	34	82	16	
VE3EJ	8,260	36	3	85	124	14	
N1NN	7,982	48	3	37	88	13	
UA2FL	7,722	22	3	157	182	13	*
N4AAI	7,722	48	3	81	132	11	
N2ED	7,448	39	1	61	101	14	
K0TQ	7,224	36	4	38	78	14	
IK2HDF	7,200	35	3	95	133	12	*
NQ2W	7,046	41	4	26	71	13	
VA3EC	6,880	40	4	104	148	10	
LZ2PS	6,580	37	5	0	42	14	*
OK2QX	6,160	27	4	105	136	11	*
NA4C	5,992	38	0	24	62	14	
N3KR	5,980	29	3	55	87	13	
W6KY	5,928	36	1	38	75	13	
VA1MM	5,832	24	5	73	102	12	
VE6LB	5,160	24	2	75	101	12	*
W1QK	4,860	36	4	23	63	10	
K3IT	4,524	21	3	39	63	13	
K7CS	4,480	37	0	39	76	10	
VE3/KD2HE	4,420	29	4	36	69	10	
AI4SV	4,202	26	3	31	60	11	
KD2MX	4,104	19	4	36	59	12	
W7GB	4,070	31	3	0	34	11	
DM3F	3,860	28	2	33	63	10	*
IZ2GRG	3,766	33	3	74	110	7	
F8DGY	3,514	25	2	106	133	7	
DL4CF	3,488	22	2	88	112	8	
N3QE	3,258	24	5	11	40	9	
LU5FZ	2,880	25	0	35	60	9	*
W5JBO	2,754	22	1	33	56	9	
CR7ACS	2,592	23	3	71	97	6	*
EA8BEX	2,506	21	3	44	68	7	*
K6DGW	2,500	17	4	0	21	10	
WA7BME	2,176	23	1	11	35	8	
K1SXD	2,124	19	2	3	24	9	
LZ2FM	1,792	14	2	38	54	7	
W7VXS	1,792	16	0	32	48	8	
VE3MO	1,722	14	1	43	58	7	
PA0LOU	1,680	17	0	35	52	7	*
SC3N	1,670	12	2	87	101	5	*
VE3TZF	1,648	16	2	3	21	8	
SI5Y	1,600	16	3	50	69	5	
KC7V	1,568	17	2	7	26	7	
EA3GBA	1,528	18	2	81	101	4	*
EW1FM	1,450	12	2	65	79	5	*
HA1TI	1,240	8	2	64	74	5	*
PY4ZO	1,100	14	2	20	36	5	*
NE8J	1,008	9	0	27	36	7	
YU1FG	768	10	0	78	88	3	*
SE5E	678	9	0	68	77	3	
YO3GNF	640	5	0	55	60	4	*
R3ZV	564	5	1	59	65	3	*
VA3RKM	530	9	0	8	17	5	
RW3AI	504	2	0	116	118	2	*
W1END	498	11	1	18	30	3	
ON5WL	474	3	1	54	58	3	*
DL4VQ	432	6	1	32	39	3	
JG3CQJ	432	4	1	24	29	4	*
DJ5HB	390	3	0	50	53	3	
SM6FKF	390	5	0	40	45	3	
LA2HFA	354	3	1	34	38	3	*
DL1AZK	348	5	1	23	29	3	

W9LHG	336	9	0	11	20	3	
UA1CUR	330	3	2	20	25	3	
VA3RJ	330	10	0	5	15	3	
OK1FCA	324	4	0	34	38	3	
PY9BDA	320	4	1	10	15	4	
4Z5TK	268	4	0	47	51	2	*
XE2B	224	3	1	3	7	4	*
JF2FIU	204	6	0	4	10	3	
LZ1OJ	188	4	0	27	31	2	
RA3NC	136	4	0	48	52	1	
G3WRR	120	4	0	0	4	3	*
OK2KFK	104	2	0	16	18	2	
JA0VTK	104	1	1	11	13	2	
YO8TTU	104	1	0	47	48	1	
UY5TE	94	1	0	42	43	1	*
OH3FM	82	1	0	36	37	1	*
YO9HG	66	3	0	18	21	1	
PA3ARM	62	0	0	31	31	1	
PC3H	62	1	0	26	27	1	
YO4AAC	52	0	0	26	26	1	
OH1SIC	50	0	0	25	25	1	
SP2HMY	42	1	0	16	17	1	*
LZ2NG	34	2	0	7	9	1	
JF7GDF	26	0	1	3	4	1	
RA0CHK	4	0	0	2	2	1	*

SINGLE OP SINGLE BAND (SOSB)

Call	Score	CDN	RAC	DX	QSOs	Mult	Band	Pwr
XM7SZ	156,300	405	18	921	1344	25	20M	HP
VE4RAC	99,888	304	12	441	757	24	20M	LP
YT1A	62,480	175	7	617	799	20	20M	HP

BAND BY BAND BREAKDOWN

Call	Score	CDN	RAC	DX	QSOs	Mult	Band	Pwr	
VE7JRX	20	2	0	0	2	1	6M	LP	*
JA1POS	2	0	0	1	1	1	6M	QRP	*
VA3PEN	200	10	0	0	10	2	10M	Any	*
LZ2PT	1,750	20	2	55	77	5	15M	HP	*
KC4ABC	264	4	1	3	8	4	15M	LP	*
JL7FBV-1	2	0	0	1	1	1	15M	LP	*
XM7SZ	156,300	405	18	921	1344	25	20M	HP	**
VE4RAC	99,888	304	12	441	757	24	20M	LP	*
YT1A	62,480	175	7	617	799	20	20M	HP	*
K3TW	46,040	194	8	101	303	20	20M	HP	*
HC2AC	38,800	119	8	295	422	20	20M	LP	*
VC390IC	36,816	181	9	421	611	13	20M	Low	*
VE3IAE	26,064	81	8	239	328	18	20M	LP	
N5OE	21,672	123	8	208	339	12	20M	LP	*
AB4GG	20,568	121	6	192	319	12	20M	HP	
VA6RQ	20,436	133	8	41	182	13	20M	Any	*
UA1AFT	16,146	66	6	231	303	13	20M	HP*	*
K6GHA	15,840	97	9	85	191	12	20M	LP	*
CX2DK	15,408	83	9	137	229	12	20M	HP	*
K5NZ	14,464	69	6	47	122	16	20M	QRP	
9A7R	12,138	43	4	102	149	17	20M	HP	*
UY5BA	10,960	49	4	263	316	10	20M	LP	*
VE1PEW	10,116	87	4	87	178	9	20M	LP	*
LY3B	9,504	37	5	161	203	12	20M	LP	*
VA7AM	9,220	66	5	81	152	10	20M	HP*	
VA3ATW	8,250	53	5	60	118	11	20M	Low	
K7JQ	7,248	50	2	32	84	12	20M	HP	*
F5NBX	7,092	41	5	139	185	9	20M	HP	*
NK3Y	6,468	41	6	29	76	11	20M	LP	*
DK3KD	5,856	40	2	146	188	8	20M	LP	*
VE1SQ	5,058	43	4	26	73	9	20M	LP	
WX7P	4,032	44	4	28	76	7	20M	HP	
PY4XX	3,870	27	4	40	71	9	20M	LP	*
VE6FT	3,820	27	4	16	47	10	20M	LP	
VA2CO	3,726	30	4	17	51	9	20M	Any	*
VE2WU	3,708	21	2	81	104	9	20M	HP	
JA7KY	3,630	27	3	0	30	11	20M	HP	*
VE7AHT	3,564	20	5	12	37	11	20M	Low	
K0YQX	3,500	27	4	0	31	10	20M	Low	*
VE3MCF	3,220	15	6	26	47	10	20M	LP	
VE3RYC	3,020	17	5	16	38	10	20M	LP	
VE4AHZ	2,920	17	4	21	42	10	20M	LP	
LY4G	2,916	22	3	103	128	6	20M	LP	
VA2LPQ	2,884	24	5	36	65	7	20M	LP	
NW5Q	2,816	23	5	11	39	8	20M	LP	
HC1JQ	2,808	23	2	21	46	9	20M	HP	
DF1IAQ	2,720	19	2	55	76	8	20M	HP	
N2ESP	2,700	22	4	0	26	9	20M	LP	
YL2AG	2,616	16	3	108	127	6	20M	LP	*
YO5ALI	2,544	20	0	112	132	6	20M	LP	*
Z39A	2,352	20	3	38	61	7	20M	LP	*
VA3AMX	2,256	16	2	41	59	8	20M	QRP	
KC0DEB	2,244	12	4	2	18	11	20M	LP	
K1GI	2,220	23	3	40	66	6	20M	HP	
VE6PLC	2,192	17	3	22	42	8	20M	LP	
LX1NO	2,044	12	2	66	80	7	20M	LP	*
W1EBB	2,016	14	4	2	20	9	20M	LP	
VE3YX	1,744	17	2	4	23	8	20M	Any	
DJ6TK	1,590	14	2	69	85	5	20M	LP	
VY1/VE1RSM	1,536	7	3	63	73	6	20M	LP	*
VA3KUG	1,350	25	1	0	26	5	20M	LP	
K6RFM	1,190	11	3	0	14	7	20M	LP	
N0ICV	1,120	12	1	0	13	8	20M	LP	*
SN6A	1,064	14	1	53	68	4	20M	HP	*
DD8SM	1,050	13	0	10	23	7	20M	HP	
AK4EM	1,050	11	2	0	13	7	20M	LP	
PA0MIR	1,030	13	0	38	51	5	20M	LP	*
YR5T	1,016	8	0	87	95	4	20M	HP	
HB9CPS	1,016	8	1	77	86	4	20M	HP	*
G3LIK	992	12	2	44	58	4	20M	LP	*
NG4L	960	12	2	0	14	6	20M	LP	
VE6CCL	820	11	2	7	20	5	20M	QRP	
JH7UJU	720	10	1	0	11	6	20M	QRP	
JA3QOS	672	8	1	6	15	6	20M	HP	
PA3GVI	672	9	1	57	67	3	20M	HP	
EI7CC	550	1	5	0	6	5	20M	HP	*
EW8OF	516	4	0	66	70	3	20M	LP	*
RV1CC	460	4	1	16	21	5	20M	LP	
PY1PDF	432	8	1	4	13	4	20M	LP	
AB8OJ	400	8	0	0	8	5	20M	LP	*
RN2FQ	378	7	0	28	35	3	20M	LP	*
OH2BN	360	9	0	0	9	4	20M	LP	*
W5TJS	360	7	2	5	14	3	20M	LP	
VE4GWN	328	5	1	6	12	4	20M	Any	
W7JSD	320	7	0	5	12	4	20M	LP	
VE3ZY	318	6	1	13	20	3	20M	Low	
VE1MEA	296	7	0	2	9	4	20M	QRP	
CU3AL	282	5	1	12	18	3	20M	LP	*
VA2OTA	248	3	1	6	10	4	20M	QRP	
JA1CPZ	240	6	1	0	7	3	20M	LP	
VE7NI	216	3	1	11	15	3	20M	QRP	
YL3DX	212	9	0	61	70	1	20M	LP	
PG1R	198	3	1	8	12	3	20M	LP	
OH1TD	192	5	0	7	12	3	20M	LP	
YB7XO	184	4	0	26	30	2	20M	LP	*
RW1CW	160	4	0	0	4	4	20M	LP	
K1JB	150	1	2	0	3	3	20M	HP	*
RW0AJ	124	3	0	16	19	2	20M	LP	*
PY5FO	120	4	0	0	4	3	20M	LP	
HF2012EFC	112	4	0	8	12	2	20M	LP	
IK1RAC	104	2	0	16	18	2	20M	QRP	*
JA3JM	96	3	0	9	12	2	20M	LP	
RZ9CJ	92	0	0	46	46	1	20M	QRP	
DL1EFW	90	3	0	30	33	1	20M	QRP	
EW6GF	88	0	0	44	44	1	20M	LP	
HA8TP	86	3	0	28	31	1	20M	LP	*
PY2KJ	84	1	1	6	8	2	20M	HP	
DL7DZ	80	1	0	35	36	1	20M	LP	
DV1/JO7KMB	80	0	0	40	40	1	20M	HP	*
JS1NDM	76	3	0	4	7	2	20M	LP	
KE5CDK	56	2	0	4	6	2	20M	LP	
SP6BXM	54	0	0	27	27	1	20M	QRP	
LY2LF	52	1	0	21	22	1	20M	LP	
KA1RFD	50	1	1	10	12	1	20M	LP	
OK2ABU	48	1	0	19	20	1	20M	HP	*
UN9GD	46	1	1	8	10	1	20M	HP	*
SP3AZO	32	3	0	1	4	1	20M	LP	
RU4CO	30	0	0	15	15	1	20M	LP	
IK2IKW	30	1	0	10	11	1	20M	LP	
JG3WDN	30	2	0	5	7	1	20M	LP	
R6CW	30	0	0	15	15	1	20M	LP	
RK4R	28	0	1	4	5	1	20M	HP*	
SM6DER	24	0	0	12	12	1	20M	LP	*
VK2PN	22	1	0	6	7	1	20M	HP	*
2E0RTR	16	1	0	3	4	1	20M	LP	
VE2GLA	16	1	0	3	4	1	20M	LP	
RX3AGQ	10	0	0	5	5	1	20M	LP	
AB2IO	10	1	0	0	1	1	20M	LP	*
JA7FYU	4	0	0	2	2	1	20M	LP	
JA7ZP	4	0	0	2	2	1	20M	HP	
OE2LRO	2	0	0	1	1	1	20M	LP	*
HA7JQK	2	0	0	1	1	1	20M	HP	
K9WX	10,322	62	1	77	140	13	40M	LP	*
VE3KCO	9,864	55	4	96	155	12	40M	Any	*
W8IQ	6,120	47	4	65	116	9	40M	HP	*
KA9O	3,582	27	3	34	64	9	40M	LP	
VA3RAO	2,860	54	1	6	61	5	40M	LP	

KB1VUN	2,592	28	2	2	32	8	40M	LP	*
K4WW	2,170	24	1	25	50	7	40M	LP	*
VE3PYJ	1,668	23	2	4	29	6	40M	LP	
WA3AAN	1,528	26	3	31	60	4	40M	LP	*
HA3MU	1,200	11	1	35	47	6	40M	LP	*
UT3EK	696	4	0	67	71	4	40M	LP	*
W7ZR	540	37	3	55	95	1	40M	LP	*
E73ECJ	174	2	1	9	12	3	40M	LP	*
M0RYB	80	4	0	0	4	2	40M	LP	*
VE9RLW	928	23	0	1	24	4	80M	Any	*
VA3LUK	612	20	0	2	22	3	80M	LP	*
VE3LM	488	12	0	1	13	4	80M	LP	
VE2PIJ	486	14	1	1	16	3	80M	LP	*

MULTI OPERATOR SINGLE TRANSMITTER HIGH POWER (MOSTHP)

Call	Score	CDN	RAC	DX	QSOs	Mult	
VE6SV	499,028	430	27	998	1455	73	**
N8OO	405,406	486	20	693	1199	61	*
K6MMM	350,668	453	23	528	1004	58	*
VE1LD	197,220	408	15	405	828	38	*
W2/VE3IFS	175,296	280	15	442	737	44	*
VE1OP	131,040	236	14	500	750	36	
WB0TEV	76,560	187	13	211	411	30	
K3MD	74,304	129	13	257	399	36	*
G3ORY	66,652	123	16	102	241	38	*
VE3UTT	64,728	120	14	376	510	29	*
KE5FXE	59,044	170	10	68	248	29	
VE3SS	26,112	59	10	13	82	32	
N6WIN	23,864	90	7	108	205	19	
DL8QS	23,004	69	7	224	300	18	*
YS1GR	18,960	61	9	79	149	20	*
KO7X	18,012	63	6	99	168	19	*
W5ASP	14,742	78	6	117	201	13	
DL5KUT	12,040	49	3	155	207	14	
W7CT	9,384	45	5	1	51	17	
K2MK	8,330	43	3	0	46	17	
CE3PG	7,740	53	5	72	130	10	*
N0BK	120	4	0	0	4	3	*

MULTI OPERATOR SINGLE TRANSMITTER LOW POWER (MOSTLP)

Call	Score	CDN	RAC	DX	QSOs	Mult	
VA3GKO	332,280	322	27	460	809	71	*
VA2WA	236,676	245	19	378	642	66	*
VE7CVA	201,760	286	15	360	661	52	*
W2YC	78,810	133	19	210	362	37	*
VE9RAC	50,400	103	9	115	227	35	*
VE6KDD	41,184	94	6	94	194	33	*
VE7UT	29,624	72	8	89	169	28	
VA3RAC	24,288	86	8	18	112	23	
W0ZF	19,008	69	6	27	102	22	*
VA7MM	9,088	41	5	29	75	16	
VE9SY	5,620	45	4	16	65	10	
VE7SUN	1,638	18	2	7	27	7	
M0CFW	980	13	1	23	37	5	*
W6PK	576	5	2	3	10	6	
JS1IFK	220	6	1	15	22	2	*

MULTI OPERATOR MULTIPLE TRANSMITTER (MOMT)

Call	Score	CDN	RAC	DX	QSOs	Mult	
VE6AO	537,240	432	23	1240	1695	74	**
VA2RAC	307,392	457	14	777	1248	48	*
VE3DC	280,016	452	14	782	1248	44	*
VA5AA	272,688	324	17	832	1173	52	*
VE6RAC	181,896	335	12	537	884	39	
AA3B	108,720	188	17	400	605	36	*
VE5RAC	75,454	172	9	267	448	31	
AB1OD	72,000	108	17	90	215	45	*
VE7RAC	66,216	135	6	333	474	31	*
VY0RAC	46,002	207	10	218	435	17	*
AL9A	37,812	113	12	137	262	23	*
VE7CMR	29,376	87	9	87	183	24	
CG7CWPC	27,440	64	8	90	162	28	
VE1DT	21,150	81	8	220	309	15	*
N0AC	18,468	70	3	106	179	19	*
NK6A	13,024	57	6	62	125	16	*

http://www.cafepress.ca/rac_radio

RAC CANADA DAY CONTEST 2012 MULTI OP LIST AND CHECK LOGS

CALL SIGN	OPERATORS
MOSTLP	
JS1IFK	JS1IFK
K6MMM	KE1B, W6NN
M0CFW	JK3GAD
VA3GKO	VA3GKO, VE9BK, VE9ML
VA3RAC	VE3WEJ VE3CTP
VA7MM	VA7MM VA7MAY VA7MM
VE6KDD	@VE6KDD, VA6RF
VE7CVA	VE7CVA
VE7SUN	VA7BJC, VA7QLT, VE7CLX, VE7FKY
VE7UT	VA7AQD, VA7WWW, VE7ALN
VE9RAC	VE9AV, VE1TAY
VE9SY	VE9SY, VE9CDL
W0ZF	W0ZF, K0BBC
W2YC	W2YC
W6PK	W6PK
VA2WA	VA2WDQ
MOSTHP	
CE3PG	CE3PG
DL8QS	DL8QS
G3ORY	G3ORY
K2MK	K2MK
KE5FXE	KE5FXE
KO7X	KO7X
N0BK	N0BK
N6WIN	
N8OO	N8OO, RX9SX/W5
VE1LD	VA1YL, VE1FA, VE1QY, VE1TT
VE1OP	VE1OP
W2/VE3IFS	VE3IFS-W2, KC2PVX, KC2OMZ
VE3SS	VE3SS
VE3UTT	VE3UTT
W5ASP	
W7CT	W7CT
WB0TEV	WB0TEV
YS1GR	YS1GR
K3MD	K3MD
DL5KUT	DL5KUT + CLUSTER
VE6SV	VE6SV, VE6RST, VE6TL, VE6PIG, VE6MRT
MOMT	
AA3B	AA3B
AB1OD	AB1OD
AL9A	AL9A
N0AC	N0AC, KB0JSH
NK6A	NK6A
VA2RAC	VA2MCJ, VE2GEJ, VE2EBK, VE2SG
VE1DT	VE1DT
VA5AA	VA6NJK, VE5FN, VE5WI, VE5ZZZ, VE6VAC, VE6ZZZ
VE5RAC	VE5RAC
VE6AO	VE6TC, VE6KC, VE6AMR, VE6STP, VA6DBA, VA6FMH, VA6MCB, SP9FKQ
VE6RAC	VE6AMT, VE6EC, VA6AWS, VE6STE, VE6HEP, VA7BB, VE6OH, VE6BHO, VE6AQ, VE6TCK, VE6JY, VE6KD.
VE7CMR	VE7CMR
VY0RAC	AH6EZ, K9DXA
VE3DC	VA3DJ, VE3BK, VE3EEZ, VE3QU & VE3RAI
CG7CWPC	VA7KJW, VE7EES, VE7EPJ, VE7MID, VE7PNJ, VE7VPK, VA7KMG
VE7RAC	VE7JR VE7XS VE7TDI VE7ACN VE7EEX

Check logs **

K6GHA, N3QC, PA3ANN, IK2AOO, VE3/YO2GL, VE2PIJ, HC2AC, XM3FH, VE6/SP9FKQ, EB1TR, PY3AU and SP4GL.

THE SPORTS PAGE

— THE CANADIAN CONTEST SCENE

SPRING CRUSH: THE DX

It's that time of the year when every weekend harbours a new challenge in Radiosport. In the centre of the March-April period lies the CQWW WPX SSB Contest, one of the most freewheeling events of the year. All those exotic prefixes and most just across the border!

On the plus side we have those multipliers so close on the low bands where the multipliers are worth more. On the minus side, we have to copy those serial numbers and copy them accurately! Do you want to obtain a special prefix for this and the CW version in May? Go to it – only $30 a weekend to become your own multiplier!

March starts off with the ARRL DX SSB Competition. It's the USA and Canada versus the world. Even without a special prefix you are a desired commodity and the Europeans, South Americans, etc are looking for QSOs with you, not each other! The low end of most of the bands is also somewhat of a refuge from the W QRM.

To become truly battle-hardened you must enter the Russian DX Contest. Other contests deduct points for errors you make in copying. In the RDXC, you have points deducted for errors the other operator makes. Confirming your call and serial number is just as important as what you are copying. The new Russians call signs add a little extra interest and the northern paths' distortion and Slavic accents make it a true test of the operators.

Tradition reigns in the Commonwealth Contest once named the British Empire Radio Union Contest, a name kept alive by "CQ BERU". This is also a special year, the Centenary of the RSGB. For CW aficionados here is a chance to work some rare countries around the world with absolutely minimum QRM from those countries not part of the Commonwealth!

There are plenty of other international contest sponsors. One can enjoy other offerings from Poland, Spain, Israel, Brazil, United Kingdom, Switzerland, Italy and Russia.

THE "LOCAL" EVENTS

Of particular interest to those of us with more modest ambitions, setups or limitations in operating time, there are a variety of QSO Parties taking place. The Ontario QSO Party is of special interest to Canadians as are the NSARA events.

Two ARCI QRP events are featured. Digital operators have something going every weekend. There averages at least one State QSO Party per weekend as well. Radiosport bursts out in the spring. Be on to enjoy it!

RETURN TO THUNDER BAY

In all the various family trips to Thunder Bay I have never had much time to contact the locals and in November I decided to rectify that situation.

I want to thank Bill, VE3XT, Tom, VE3CX, Miguel, VE3TU and the boys at VE3SAO, the Northwestern Ontario Senior Citizens Amateur Radio Club. George, VE3DOW and Doug, VE3EFC, showed me the very clever remote control system they were using in a very modern station.

It has been 52 years since I operated from Thunder Bay and since most all of my friends from those days are now gone, it was good to see those that provide continuity from then to now. It was great to see contesting – and Amateur Radio in general – flourishing in my old hometown.

George VE3DOW, Bill VE3XT, Doug VE3EFC, Bob VE3KZ at VE3SAO in Thunder Bay

Bob Nash, VE3KZ
5260 14th Sideroad, RR6
Milton, ON L9T 2Y1
Tel. 905-878-7382
Email: ve3kz@rac.ca

Contest results courtesy of the Maritime Contest Club team

NEXT ISSUE

Look forward to the Reverse Beacon Network and the use of Skimmers in the next issue.

See you all in the Ontario QSO Party sponsored by CCO and then finish the month off with the Florida QSO Party sponsored by FCG!

Love chasing those mobiles!

73 Bob, VE3KZ

NSARA 2012

Call	QSO	Ctys	Score	Mode
VE1CZ	58	16	928	SSB
VE1VCI	50	15	750	SSB
VE1QT	46	16	736	SSB
VE1GFG	36	14	504	SSB
VE1ALQ	35	14	490	SSB
VE1RAR	34	14	476	SSB
VE9REB	36	13	468	SSB
VE9NA	31	14	434	SSB
VE1RR	26	13	338	SSB
VE9CX	29	11	319	SSB
VE1BA	14	5	60	CW
VE1DO	10	4	40	CW
VE1NMX	6	4	24	SSB

SP DX RTTY 2012

Call	QSO	DXCC	Cont	Score
VA2UP	727	190	6	7,264,080
VE2FK	313	119	5	1,648,745
VE2EBK	269	113	6	1,534,314
VE3KAO	105	33	6	153,252
VE7CF	134	38	4	135,736
VE3FJ	66	41	6	127,428
VA7ST	95	35	5	106,400
VE3MCF	73	34	4	81,872
VE6AMI	32	19	4	18,696
VE3TL	9	4	1	360

WISCONSIN QSO PARTY 2012

Call	QSO	WI Ctys	Score	Power
VA3GKO	85	39	4,972	L
VE5KS	48	30	3,330	L
VE3PYJ	34	17	867	L
VE1OP	21	20	840	H
VA6NJK	20	32	640	H

NA SPRINT RTTY MARCH 2012

Call	QSO	Mult	Score
VE4EAR	117	33	3,861
VE2EBK	108	33	3,564
VE2FK	52	24	1,248
VE3FWF	43	20	860
VE6SQ	38	20	760
VE3JI	23	15	345
VE6AMI	19	12	228

ARRL INTERNATIONAL DX CONTEST - SSB - 2012

Call	QSO	Mult	Score	Class	Power
VE3EJ	3,364	435	4,374,360	SOAB	High
VC3A (VE3AT, op)	3,260	415	4,043,760	SOAB	High
VY2TT (K6LA, op)	3,388	387	3,902,121	SOAB	High
VE7CC	2,127	315	1,997,730	SOAB	High
VE3TA	2,010	303	1,817,091	SOAB	High
VE3MIS	1,289	324	1,240,272	M/S	High
VE3FWA	1,035	333	1,027,971	SO(A)	High
VE2NGH	1,086	306	988,686	M/S	High
VO1KVT	1,202	226	808,176	SOAB	High
VE9MY	641	310	591,480	SO(A)	High
VA2SS	790	234	547,560	SO(A)	Low
VE8EV	1,178	145	505,905	SOAB	High
VA3PC	553	259	428,127	SO(A)	High
VA3SWG	783	181	417,024	SOAB	Low
VE1ZD	717	196	415,716	SO(A)	Low
VA3YOJ	681	204	408,816	SOAB	High
VA7ST	689	189	388,962	SOAB	High
VE6WP	638	192	366,336	SOAB	High
VE4VT	540	220	350,460	SOAB	High
VA7OM	645	183	348,615	SO(A)	High
VE2EBK	493	227	329,604	SO(A)	Low
VE3AD	606	183	322,812	SOAB	Low
VA7BEC	627	174	322,074	SO(A)	Low
VA3DF	485	220	320,100	SOAB	QRP
VE6EX	626	169	314,340	SOAB	Low
VE7IO	585	185	313,020	M/M	N/A
VA3XH	487	215	306,375	SOAB	High
VE9ML	486	211	298,143	SOAB	Low
VA3ZDX	475	214	292,110	SOAB	High
VE1ZA	555	163	270,906	SOAB	Low
VE7WO	558	154	256,872	SO(A)	High
VE3CV	471	180	253,260	SOAB	Low
VO1BBN	416	203	250,908	SOAB	Low
VE3BW	343	174	177,480	SO(A)	High
VE3TU	354	164	172,692	SOAB	Low
VE3XAT	323	175	169,050	SO(A)	Low
VE7XF	358	150	160,650	SO(A)	High
VO1DJT	389	138	158,148	SOAB	Low
VE9HF	643	80	153,120	SO20	N/A
K6AAX/VY2	616	84	152,460	SO80	N/A
VE1ZJ	356	143	150,150	SOAB	Low
VE6AO	380	132	147,708	M/S	High
VA7FC	379	131	147,375	SO(A)	Low
VA2WA (VA2WDQ, op)	372	132	146,916	SO(A)	Low
VA6NJK	334	138	137,448	SO(A)	High
VE2EZD	294	154	133,980	SO(A)	High
VE4YU	323	134	129,846	SOAB	Low
VE3BK	254	150	112,500	SO(A)	High
VE3OM	261	126	97,524	SOAB	Low
VA3UG	246	123	89,298	SOAB	Low
VE5MX	224	127	84,963	SO(A)	High
VE7AX	238	111	78,588	SO(A)	High
VE5SF	237	108	74,844	SOAB	Low
VE9OA	196	116	66,816	SOAB	Low
VA3GD	204	109	64,092	SOAB	Low
VE3IAE	198	108	63,828	SO(A)	Low
VE2ESU	210	102	62,424	SO(A)	High
VE2AXO	210	102	61,506	SOAB	Low
VE5MC	192	109	61,476	SOAB	Low
VE3IQ	204	101	61,206	SO(A)	High
VE6DDD	168	115	56,925	SO(A)	High
VA3GKO	154	112	50,400	SOAB	Low
VE6JY	154	109	50,358	SO(A)	High
VA6MA	290	59	50,091	SO15	N/A
VE3DZ	175	89	46,725	SOAB	Low
VE8GER	229	67	45,828	SOAB	Low
VY2ZM	245	61	44,286	SO160	N/A
VA3FS	132	106	39,432	SOAB	Low
VA3FP	200	63	37,800	SO15	N/A
VE1RAR	166	64	31,104	SO20	N/A
VA3WPV	130	82	30,996	SOAB	QRP
VE3TL	145	71	30,885	SO20	N/A
VE3FU	191	50	28,500	SO40	N/A
VE2KY	131	77	28,182	SOAB	Low
VE3HG	119	78	27,612	SOAB	QRP
VA3DBT	113	75	24,975	SOAB	Low
VE7NS	144	58	24,882	SOAB	Low
VA5LF	118	67	23,517	SOAB	High
VE5UO	113	63	21,357	SO(A)	Low
VE6AX	114	58	18,966	SO(A)	Low
VE9QRP	92	68	18,156	SO(A)	Low
VE7JR	94	58	16,182	SOAB	High
VE4KZ	84	59	14,337	SOAB	High
VE7NA	113	42	13,608	M/S	Low
VE7TVH	118	38	13,452	SO(A)	Low
VE3SWS	94	46	12,972	SO40	N/A
VE3NQM	76	53	11,925	SOAB	Low
VE2JR	78	52	11,544	SOAB	Low
VE1OP	58	58	10,092	SO20	N/A
VA3PAW	66	52	9,984	SOAB	Low
VA2RIO	69	44	9,108	SOAB	Low
VA3FN	64	48	9,072	SOAB	Low
VE5KS	100	30	8,910	SO10	N/A
VE7JWS	81	39	8,775	SOAB	Low
VE3IH	67	42	8,064	SO40	N/A
VE3AJ	59	40	7,080	SOAB	Low
VE6FN	60	40	7,080	SOAB	High
VA7AM	50	44	6,600	SOAB	Low
VA3TPV	55	38	6,270	SOAB	Low
VE5CPU	64	29	5,394	SO20	N/A
VE4SN	45	38	5,016	SOAB	Low
VA3RKM	46	36	4,968	SOAB	QRP
VA7ZM	53	25	3,825	SOAB	Low
VE6SQ	51	25	3,825	SOAB	Low
VE3NR	31	29	2,697	SOAB	Low
VA7GAP	52	17	2,652	SOAB	Low
VE8DW	34	15	1,530	SO20	N/A
VE3PYJ	23	21	1,449	SOAB	Low
VE5GC	24	20	1,440	SOAB	Low
VA3LUK	24	19	1,368	SOAB	High
VE3RCN	20	20	1,200	SOAB	Low
VE3OKK/VE2	19	18	972	M/S	Low
VE4RON	20	16	960	SOAB	Low
VE2JM	19	13	741	SO(A)	High
VE7ACN	24	7	504	SOAB	High
VE2DRO	14	12	468	SOAB	Low
VE3WCQ	12	10	360	SOAB	Low
VE2FXL	9	8	216	SO(A)	High
VE7DAQ	9	4	108	SO20	N/A

FLORIDA QSO PARTY 2012

Call	QSO	Mult	Score	Category	PWR
VE3KZ	688	119	283,696	MIXED	LOW
VA3DX	504	125	214,250	MIXED-ASSISTED	LOW
VA3DF	397	95	208,620	MIXED	QRP
VE4VT	397	97	136,188	MIXED	LOW
VE3RZ	404	105	75,600	MIXED	HIGH
VE1RGB	236	66	59,664	CW	LOW
VE3IAE	206	82	58,056	MIXED	LOW
VE3OM	216	67	56,280	CW	LOW
VE9AA	378	67	49,178	CW	HIGH
VE3SB	181	65	45,760	CW	LOW
VE7CV	141	81	39,528	MIXED-ASSISTED	LOW
VE3TW	168	74	38,924	MIXED	LOW
VE4YU	121	67	27,068	MIXED	LOW
VE9HF	109	67	23,450	MIXED-ASSISTED	LOW
VE3HG	90	60	23,220	MIXED	QRP
VE2AWR	123	49	22,344	MIXED	LOW
VE7IO*	142	69	16,422	MULTI-MULTI	HIGH
VA3GUY	85	49	16,072	CW	LOW
VE3CX	137	64	14,784	MIXED	HIGH
VA3WR	61	40	10,200	MIXED	QRP
VY2LI	195	48	9,312	SSB	HIGH
VA3WPV	73	37	7,992	SSB	QRP
VE2KOT	57	34	7,480	CW	LOW
VA3KAI	54	33	7,128	CW	LOW
VA3PC	89	39	6,864	SSB-ASSISTED	LOW
VA3EC	49	35	6,580	CW	LOW
VA3YP	159	41	6,355	SSB-ASSISTED	HIGH
VE3EJ	49	30	5,640	CW	LOW
VA3OR	45	34	5,100	MIXED	LOW
VA3GKO	73	35	5,040	SSB	LOW
VE3HUR	43	28	4,704	CW	LOW
VA3FN	45	26	4,368	CW	LOW
VE3AD	96	38	3,458	SSB	HIGH
VE3EY	32	24	2,976	CW	LOW
VE3AUO	44	32	2,944	MIXED	LOW
VE2EZD	53	29	2,726	MIXED	HIGH
VE3AJ	50	28	2,688	MIXED-ASSISTED	LOW
VE7JH	31	27	2,376	MIXED	LOW
VE3MCF	35	23	1,610	SSB	LOW
VE9ML	21	16	960	MIXED-ASSISTED	LOW
VA2UTC	23	14	616	SSB	LOW
VE1PEW	14	11	286	SSB	LOW
VE2GLA	9	8	256	CW	LOW

*Ops: VA7CNR VE7FO VE7GM VE7IO VE7OFH

ONTARIO QSO PARTY 2012

Call	QSO	Mult	Score	Category
VA3RAC	1009	330	482130	M2
VE3WG/R	475	375	405225	RoverSO
VE3CX	736	271	297016	SOHP Mixed
VE3DC	825	211	213743	MM
VA3CCO	534	261	211410	SOHP Mixed
VE3CRU/R	295	218	195412	RoverSO
VE3MIS	548	208	193856	MM
VE3DZ	371	199	166762	SOHP CW
VE3SWA	405	199	142683	MM
VE3DV/R	323	261	139881	RoverMO
VE3EJ	346	182	133224	SOHP CW
VE3RZ	290	163	110840	SOHP Mixed
VA3KAI/R	308	158	77688	RoverSO
VA3DF	264	145	77285	SOQRP
VA3GKO	402	165	76725	SOLP Phone
VE3MGY	392	149	70477	SOLP Phone
VE3OSZ	222	134	65928	SOLP CW
VE3KAO	230	127	64516	SOLP CW
VE3GSI	239	110	56980	SOLP CW
VE3FGU	186	126	44352	SOHP Mixed
VE9ML	221	98	44198	MM
VE3XL	169	116	42920	SOLP CW
VE3ZI	157	104	36816	SOHP CW
VA3WR	170	103	36359	SOQRP
VE3IAE	207	95	36005	SOLP Mixed
VE3KPP	245	121	34001	SOHP Phone
VA3MW	209	111	32412	SOLP Mixed
VE3XB	139	98	31164	SOHP CW
VE3TW	185	102	29172	SOLP Mixed
VA3OPP	209	103	27089	SOLP Phone
VE3CV	151	89	25098	SOLP Mixed
VE3ODX	169	95	20900	MM
VE3EK	92	66	14256	SOHP CW
VE3WBT	134	88	13640	SOHP Phone
VA3RKM	93	75	13200	SOLP Mixed
VE3FZ	111	66	12936	SOLP Mixed
VE3SB	101	63	12222	SOLP Mixed
VE3MM	101	64	12160	SOLP Mixed
VA3GUY	107	43	9546	SOLP CW
VA3EC	96	49	9457	SOLP Mixed
VE3LC	75	49	8918	SOLP CW
VE3AD	96	65	8580	SOHP Phone
VE3FJ	69	47	7238	SOLP CW
VE3XT	68	49	6958	SOLP Mixed
VE3FH	72	41	6273	SOLP Mixed
VA3ZAK	77	54	5520	SOLP Phone
VE4EAR	57	38	5472	SOHP Mixed
VE3NQM	58	46	5106	SOLP Phone
VE4YU	57	35	4970	SOLP Mixed
VE9OA	56	41	4961	SOLP Mixed
VA3WPV	80	55	4895	SOLP Phone
VE1ZA	50	34	4590	SOLP Mixed
VE3RCN	63	40	3960	SOLP Mixed
VA3NQ	65	39	3237	SOLP Phone
VE3JI	82	38	3116	SOLP Phone
VE3GTC/R	43	35	2895	RoverSO
VE3PYJ	56	33	2739	SOLP Phone
VE3/KD2HE	41	29	2610	SOLP Mixed
VA3ATW	82	30	2460	SOLP Phone
VE3PYG	43	28	2212	SOQRP
VA7BEC	31	27	2052	SOLP Phone
VY2LI	46	30	1920	SOHP Phone
VE3RKS/R	21	18	1740	RoverSO
VE3HUR	31	22	1716	SOLP CW
VA3RCS	38	30	1680	SOLP Phone
VE3PRR	37	34	1564	MS
VE3MDX	33	19	1558	SOLP CW
VE3AJ	33	25	1500	SOHP Phone
VE5KS	22	18	1368	SOLP Mixed
VE3XTI	28	20	1320	SOQRP
VE1RGB	26	17	1292	SOLP CW
VE3NB	32	21	1050	SOHP Phone
VA3CBE	24	18	810	SOLP Mixed
VA3EEB	22	19	760	SOLP Phone
VA3PCJ	21	19	741	SOQRP
VA2UTC	26	20	700	SOLP Phone
VA3FN	18	15	465	SOLP Mixed
VA3QV	18	16	432	SOQRP
VA3RJ	14	9	396	SOLP CW
VE3ZW	23	16	368	SOLP Phone
VA2RIO	11	10	290	SOLP Phone
VE7JH	11	9	270	SOLP CW
VE3NQK	11	11	220	SOLP Phone
VE9AA	11	7	210	SOHP CW
VE3TA	9	9	162	SOHP CW
VA2EPR/VE3	11	10	110	SOQRP
VE3XAT	7	7	98	SOLP CW
VA7AQD	3	3	36	SOLP Phone
VE3MCF	6	4	24	SOLP Phone
VE3LM	1	1	10	SOLP Phone

RUSSIAN DX CONTEST 2012

Call	QSO	Points	DXCC	Oblasts	Score	Class
VE3DZ	1,282	6,220	208	79	1,785,140	SOAB-MIX
VE7CC	804	3,614	176	63	863,746	SOAB-MIX
XL3T	944	3,928	161	51	832,736	SOAB-MIX
VE3YAA	964	3,102	180	45	697,950	MO2T
VA2WA	718	3,074	138	41	550,246	SOAB-CW
VE3XB	489	1,918	126	27	293,454	SOAB-CW
VE9ML	331	1,564	109	38	229,908	MO2T
VE2NGH	442	1,612	93	28	195,052	MOST
VE1RGB	420	1,514	104	8	169,568	SOAB-CW-LP
VE1ZJ	328	1,276	94	20	145,464	SOAB-CW-LP
VE9HF	297	1,388	47	17	88,832	SOSB-14
VE1AL	224	760	78	9	66,120	SOAB-CW-LP
VE2AWR	210	824	66	3	56,856	SOAB-MIX-LP
VE6EX	417	1,163	38	1	45,357	SOAB-MIX-LP
VE3EJ	104	457	58	13	32,447	SOAB-CW
VE3CX	96	482	40	11	24,582	SOAB-MIX
VA3DDX	154	443	52	3	24,365	SOAB-CW-LP
VE3RZ	108	435	49	4	23,055	SOAB-MIX
VE3TU	122	496	30	7	18,352	SOAB-SSB-LP
VE3OM	74	387	39	8	18,189	SOAB-CW-LP
VE1OP	104	421	31	8	16,419	SOSB-14
VE2FK	98	402	29	3	12,864	SOSB-7
VE4YU	100	315	29	1	9,450	SOAB-MIX-LP
VE6TL	75	268	19	3	5,896	SOAB-MIX
VE3FJ	52	186	23	2	4,650	SOSB-14
VE3KZ	61	147	19	0	2,793	SOSB-21
VE9AA	41	132	19	1	2,640	SOSB-7
VA3DBT	21	91	16	1	1,547	SOAB-SSB-LP
VA3ZAK	31	68	22	0	1,496	SOAB-SSB-LP
VE3RCN	26	84	16	0	1,344	SOAB-MIX-LP
VE1ZA	24	78	14	2	1,248	SOAB-CW-LP
VA2UTC	27	73	10	0	730	SOAB-SSB-LP
VE8GER	13	48	10	0	480	SOAB-SSB-LP
VE5GC	30	53	3	0	159	SOSB-21
VE2GLA	7	20	6	0	120	SOAB-CW-LP
VA3EC	4	5	4	0	20	SOSB-14
VE9OA	67	0	41	7	0	SOAB-MIX-LP
VE3SB	15	0	11	1	0	SOAB-MIX-LP
VA7DZ	143	0	38	3	0	SOAB-CW

YURI GAGARIN INTERNATIONAL DX CONTEST 2012

Call	QSO	Mult	Score	Category	Power
VE1ZJ	166	41	41,164	SOAB	LP
VE2FK	188	33	31,185	SOAB	HP
VA2WA	216	33	30,459	SOAB	LP
VE3OM	96	26	9,984	SOAB	LP
VE3IAE	89	24	9,480	SOAB	HP
VE3KAO	64	25	7,525	SOAB	HP
VE2FXL	24	5	450	SO20M	HP
VE2KOT	6	6	132	SOAB	LP

CQ MANCHESTER MINEIRA DX CONTEST 2012

Call	QSOs	Mult	Score	Category
VE9HF	672	337	567,720	SOAB HP
VE9AA	179	122	64,288	SOAB HP
VE1OP	205	159	54,020	SOAB HP
VA7ST	132	105	45,396	SOAB HP
VE2FK	103	82	30,912	SOAB HP
VE2AWR	72	53	21,505	SOAB LP
VE3FJ	70	59	17,019	SOAB LP
VE3FH	53	42	14,304	SOAB LP
VE6GJ	75	55	13,734	SOAB LP
VE1AI	35	25	7,245	SOAB HP
VE7BGP	33	27	4,727	SOAB LP
VE9OA	35	33	4,030	SOAB LP
VE4YU	26	18	2,926	SOAB LP
VE2KOT	28	24	1,805	SOAB LP
VA5LF	12	12	552	SOAB LP
VE2EZD	11	11	407	SOAB HP
VE2GLA	2	2	12	SO20M

RSGB – BERU 2012

Call	QSO	Areas	Score	Category	Hours
VE3EJ	894	165	9,350	Open	24-Hours
XL3T	852	148	8,700	Open	24-Hours
VE3FU	601	121	6,765	Open	24-Hours
VE3OI	531	118	6,395	Open	24-Hours
VE3KI	562	107	5,850	Open	24-Hours
VO1HP	695	78	5,715	Multi-op	24-Hours
VE1OP	541	88	5,165	Open	12-Hours
VE9ML	518	84	4,810	Multi-op	24-Hours
VO1TA	487	77	4,675	Open	12-Hours
VE9HF	503	77	4,635	Open	24-Hours
VE3KZ	335	102	4,455	Open	12-Hours
VE3RZ	299	102	4,375	Multi-op	24-Hours
VE7CC	257	94	4,365	Open	24-Hours
VE1ZJ	433	76	4,205	Open	24-Hours
VE3ZI	315	81	3,795	Open	12-Hours
VA3DX	246	76	3,230	Multi-op	24-Hours
VE1AL	295	60	3,075	Open	24-Hours
VE3JM	304	57	2,940	Open	12-Hours
VE1RGB	260	60	2,880	Open	24-Hours
VE3VHB	143	78	2,735	Open	12-Hours
VA2WA	217	48	2,485	Open	12-Hours
VE7RAC	133	56	2,485	HQ	24-Hours
VO1GO	167	46	2,235	Restricted	24-Hours
VE2AEJ	137	50	2,205	Open	12-Hours
VA3RAC	129	52	2,205	HQ	24-Hours
VE3OSZ	120	57	2,160	Restricted	12-Hours
VE3OM	105	61	2,145	Open	24-Hours
VE3TG	124	51	2,140	Restricted	12-Hours
VE3TA	166	43	1,990	Open	12-Hours
VE3IAE	91	48	1,695	Restricted	12-Hours
VE2FK	138	38	1,690	Multi-op	24-Hours
VE4YU	81	40	1,465	Open	24-Hours
VE3USP	96	34	1,440	Open	24-Hours
VE1ZA	129	29	1,425	Open	12-Hours
VE3DZ	65	39	1,265	Open	12-Hours
VA7ST	76	27	1,160	Open	12-Hours
VE3KAO	51	34	1,115	Open	12-Hours
VE1ZAC	60	29	1,100	Open	12-Hours
VE4VT	45	29	1,005	Open	24-Hours
VA3DDX	45	26	925	Restricted	12-Hours
VE3XK	37	25	845	Open	12-Hours
VE5ZX	34	24	710	Open	24-Hours
VE6TL	40	17	660	Open	12-Hours
VE3CX	30	19	650	Open	12-Hours
VE3CES	31	17	615	Open	12-Hours
VE5VA	32	18	600	Restricted	12-Hours
VE2EZD	23	16	535	Open	12-Hours
VA3GUY	46	11	490	Open	12-Hours
VA3RKM	21	14	485	Restricted	12-Hours
VA5LF	22	7	370	Open	12-Hours
VE5UO	11	6	255	Open	12-Hours
VE3IGJ	9	7	225	Restricted	12-Hours
VE2QV	14	5	210	Restricted	12-Hours
VE7BGP	7	6	175	Open	12-Hours
VE7BQO	6	5	150	Restricted	12-Hours
VE3XAT	9	3	145	Open	12-Hours
VA3FN	3	3	75	Restricted	12-Hours

SP DX 2012

Call	QSO	Mult	Score	Category
VE9HF	258	63	48,762	SO AB CW HP
VE1OP	223	47	31,443	SO TB MIXED
VE3MIS	109	30	9,810	MO AB MIXED
VE1RGB	69	39	8,073	SO AB CW LP
VE9ML	63	38	7,182	SO AB MIXED LP
VO1GO	66	35	6,930	SO AB CW LP
VE3OM	65	34	6,630	SO AB CW LP
VA2WA	53	31	4,929	SO AB CW LP
VE9OA	47	33	4,653	SO AB MIXED LP
VE3BDN	59	23	4,071	SOAB SSB LP
VE3DXP	48	24	3,456	SOAB SSB LP
VE2FK	25	17	1,275	SO AB CW HP
VE3ZOC	27	13	1,053	SO-20M SSB
VA7ST	19	12	684	SO AB CW HP
VE5MX	19	11	627	SO AB CW HP
VE3IAE	17	11	561	SO-40M CW
VA3GUY	14	7	294	SO-15M CW
VO1BQ	10	7	210	SO AB CW LP
VE2GLA	2	2	12	SO-20M CW
VA3STZ	0	0	0	SO-40M SSB

CQ WW WPX SSB 2012

Call	QSO	Mult	Score	Class	Category
VY2ZM (K1ZM)	4,467	1,238	18,863,406	HP	SOAB
XL3T (VE3AT)	3,935	1,231	15,890,979	HP	SOAB
VE3EJ	3,981	1,217	15,554,477	HP	SOAB
VY2/K5WA	3,167	1,037	11,796,912	HP	SOAB
VE7CC	2,787	1,081	9,117,154	HP	SOAB
VE3OI	2,528	1,031	8,328,418	HP	SOAB
VC7R (VA7RR)	2,494	988	5,664,204	HP	SO20M
VE4VT	1,676	788	3,916,360	HP	SOAB
VA7ST	1,385	657	2,553,759	HP	SOAB
VE6EX	1,550	564	2,354,136	LP	SOAB
VA3SWG	1,054	593	2,066,012	LP	SOAB
VE9AA	864	498	1,298,286	HP	SOAB
VO1TX	841	488	1,257,088	LP	SOAB
VO1KVT	748	482	993,884	HP	SOAB
VA3UG	745	437	960,526	LP	SOAB
VA6UK	716	447	861,816	HP	SOAB
VE3FH	596	361	702,506	LP	SOAB
VE5ZX	612	429	634,920	LP	SO20M
VA3ZDX	493	326	469,440	HP	SOAB
VE1AL	470	322	467,544	LP	SOAB
VE2AWR	464	303	434,805	LP	SOAB
VE3NNG	443	306	420,138	LP	SOAB
VE4YU	440	299	379,431	LP	SOAB
VE6KD	442	332	377,152	HP	SOAB
VE8GER	434	297	316,008	LP	SOAB
VO1BBN	321	206	248,848	LP	SOAB
VE4TTH	328	241	221,961	LP	SOAB
VA3YOJ	286	223	209,620	HP	SOAB
VE6SQ	354	235	208,210	LP	SOAB
VE3TA	288	241	207,260	HP	SOAB
VE1JS	260	219	188,340	HP	SOAB
VA3FP	280	248	182,528	HP	SO20M
VE4KZ	324	244	178,852	HP	SO20M
VE3RZ	200	173	167,291	HP	SO40M
VA5LF	270	220	155,540	HP	SOAB
VA3DBT	277	210	151,620	LP	SOAB
VE3SWS	183	165	146,190	LP	SO40M
VA7CRZ	249	221	133,042	LP	SO20M
VA3GD	242	194	127,264	LP	SOAB
VE1RAR	229	210	126,630	LP	SO20M
VA3KAI	230	172	121,776	LP	SOAB
VE5UO	269	186	119,970	LP	SOAB
VE3TU	201	163	100,245	LP	SOAB
VE6AMI	211	180	94,500	LP	SOAB
VA3GKO	186	154	92,862	LP	SOAB
VE3IAE	189	179	89,858	LP	SO20M
VE3NE	147	134	80,400	LP	SOAB
VE3RCN	183	152	80,256	LP	SOAB
VE2EZD	186	147	78,939	HP	SOAB
VE5GC	190	142	65,888	LP	SOAB
VE7VR	184	129	58,695	HP	SOAB
VE7RSV	151	139	57,268	LP	SOAB
VE2AXO	157	126	55,188	LP	SOAB
VA2AFH	145	139	54,905	LP	SO15M
VA3GUY	142	129	50,697	LP	SO20M
VE6FN	153	134	50,518	HP	SOAB
VE2KY	118	100	38,200	LP	SOAB
VE3WG	116	99	31,581	LP	SOAB
VA3PAW	111	92	30,452	LP	SOAB
VE5KS	111	89	27,501	LP	SO10M
VA3OV	88	78	22,776	LP	SOAB
VE6EC	97	90	22,230	LP	SOAB
VE1ZA	86	82	19,516	LP	SOAB
VE8DW	88	86	19,178	HP	SOAB
VA3FN	75	66	15,180	LP	SOAB
VO1BQ	62	53	15,158	HP	SOAB
VE9OA	68	63	13,608	LP	SOAB
VE7YU	58	52	10,712	LP	SO80M
VE2OXA	61	60	10,200	LP	SOAB
VE3OIL	63	54	8,640	LP	SOAB
VE3EDY	50	44	8,140	LP	SO160M
VE3PYJ	42	40	7,840	LP	SO40M
VA6AN	49	42	5,670	LP	SOAB
VE3VID	40	40	4,760	LP	SOAB
VE2GLA	41	40	4,480	LP	SO20M
VE7VAW	45	38	3,572	LP	SOAB
VE3AJ	33	31	3,007	LP	SOAB
VE7TI	28	24	2,736	LP	SOAB
VE8NE	40	36	2,700	LP	SOAB
VA3DDX	30	30	2,550	LP	SOAB
VE3AUO	28	28	1,904	LP	SO20M
VA7ZM	15	15	645	LP	SO20M
VE3XAT	10	10	240	LP	SOAB
VE2JM	8	7	112	HP	SO20M
VE7DAQ	6	6	108	LP	SO20M

CONTEST CALENDAR FOR MARCH, APRIL AND EARLY MAY 2013

Contest Name	Start	End	Web Address
ARRL Int. DX SSB	0000z 2 Mar	2359z 3 Mar	http://www.arrl.org/arrl-dx
ARCI Grid Square Sprint	1500z 9 Mar	1800z 9 Mar	http://www.qrparci.org/contests/qrp-arci-contests
RSGB Commonwealth CW	1000z 9 Mar	1000z 10 Mar	http://www.rsgbcc.org/hf/rules/2013/rberu.shtml
Idaho QSO Party	1900z 9 Mar	1900z 10 Mar	http://www.idahoarrl.info/qsoparty/rules.htm
NSARA SSB Contest (Morning)	1200z 10 Mar	1600z 10 Mar	http://nsara.ve1cfy.net/nsaracst.htm
NSARA SSB Contest (Afternoon)	1800z 10 Mar	2200z 10 Mar	http://nsara.ve1cfy.net/nsaracst.htm
NCJ Sprint RTTY	0000z 10 Mar	0400z 10 Mar	http://www.ncjweb.com/sprintrules.php
Wisconsin QSO Party	1800z 10 Mar	0100z 11 Mar	http://www.warac.org/wqp/wqp.htm
Russian DX Contest	1200z 16 Mar	1200z 17 Mar	http://www.rdxc.org/
Virginia QSO Party (Part 1)	1400z 16 Mar	0200z 17 Mar	http://www.qsl.net/sterling/uf1.htm
Virginia QSO Party (Part 2)	1200z 17 Mar	2400z 17 Mar	http://www.qsl.net/sterling/uf1.htm
QCWA Spring QSO Party	1800z 16 Mar	1800z 17 Mar	http://www.qcwa.org/
Oklahoma QSO Party (Part 1)	See Web Site	See Web Site	http://k5cm.com/okqp.htm
Oklahoma QSO Party (Part 2)	See Web Site	See Web Site	http://k5cm.com/okqp.htm
BARTG Spring RTTY Contest	0200z 16 Mar	0200z 18 Mar	http://www.bartg.org.uk/hfrttycontest.asp
CLARA & Family Contest (Part 1)	1700z 19 Mar	1700z 20 Mar	http://www.clarayl.ca/
NAQCC Sprint	0030z 21 Mar	0230z 21 Mar	http://naqcc.info/contests.html
NSARA CW & Digital Contests (Morning)	1200z 24 Mar	1600z 24 Mar	http://nsara.ve1cfy.net/nsaracst.htm
NSARA CW & Digital Contests (Afternoon)	1800z 24 Mar	2200z 24 Mar	http://nsara.ve1cfy.net/nsaracst.htm
CLARA & Family Contest (Part 2)	1700z 23 Mar	1700z 24 Mar	http://www.clarayl.ca/
CQ WW WPX SSB	0000z 30 Mar	2359z 31 Mar	http://www.cqwpx.com/
ARCI QRP Spring CW	1200z 6 Apr	2359z 6 Apr	http://www.qrparci.org/contests/qrp-arci-contests
SP DX Contest	1500z 6 Apr	1500z 7 Apr	http://www.sk3bg.se/contest/pdf/spdx.pdf
EA RTTY Contest	1600z 6 Apr	1600z 7 Apr	http://www.ure.es/contest/430-ea-rtty-contest.html
JIDX CW Contest	0700z 13 Apr	1300z 14 Apr	http://www.jidx.org/jidxrule-e.html
Georgia QSO Party (Part 1)	1800z 13 Apr	0359z 14 Apr	http://georgiaqsoparty.org/
Georgia QSO Party (Part 2)	1400z 14 Apr	2359z 14 Apr	http://georgiaqsoparty.org/
NAQCC Sprint	0030z 10 Apr	0230z 10 Apr	http://naqcc.info/contests.html
Holyland DX Contest	2100z 19 Apr	2100z 20 Apr	http://www.iarc.org/
Michigan QSO Party	1600z 20 Apr	0400z 21 Apr	http://www.miqp.org/index.html
Ontario QSO Party (Part 1)	1800z 20 Apr	0500z 21 Apr	http://www.va3cco.com/oqp/rules.htm
Ontario QSO Party (Part 2)	1200z 21 Apr	1800z 21 Apr	http://www.va3cco.com/oqp/rules.htm
Manchester Mineira DX Contest	1200z 20 Apr	2359z 21 Apr	http://www.cwjf.com.br/
YU DX Contest	0900z 20 Apr	1700z 21 Apr	http://www.yu1srs.org.rs/dl/yudx/yudxmain.html
Florida QSO Party (Part 1)	1600z 27 Apr	0159z 28 Apr	http://www.floridaqsoparty.org/index.html
Florida QSO Party (Part 2)	1200z 28 Apr	2159z 28 Apr	http://www.floridaqsoparty.org/index.html
Nebraska QSO Party	1100z 27 Apr	1700z 28 Apr	http://www.hdxa.net/neqso/
SP DX RTTY Contest	1200z 27 Apr	1200z 28 Apr	http://www.pkrvg.org/zbior.html
Helvetia Contest	1300z 27 Apr	1259z 28 Apr	http://www.uska.ch/index.php?id=87&L=3
ARI DX Contest	1200z 4 May	1200z 5 May	http://www.ari.it/index.php?option=com_content&view=category&layout=blog&id=250&Itemid=270&lang=en
7QP QSO Party	1300z 4 May	0700z 5 May	http://www.codxc.com/new/page.asp?content=start
CQ-M International DX Contest	1200z 11 May	1159z 12 May	http://www.srr.ru/CONTEST/cup_raem_engl_12.php
Volta WW RTTY Contest	1200z 11 May	1200z 12 May	http://www.contestvolta.com/

Check these online sites for more contest information: <www.hornucopia.com/contestcal/weeklycont.html>; <www.contesting.com>; <www.sk3bg.se/contest/>; <www.arrl.org/contests/calendar.html>; <www.arrl.org/contests/rate-sheet/about.html>; and <www.cq-amateur-radio.com/awards.html>.
The "Contest Calendar" is presented as a guide only. RAC and TCA do not necessarily endorse or support any of the above contests or the accuracy of the information.
Bands: The 30, 17 and 12m bands are never used in any contest.

EA-RTTY 2012

Call	QSO	Mult	Score	Category
VE2FK	236	108	56,808	SOAB
VE3KAO	175	119	49,980	SOAB
VE3AJ	119	94	27,072	SOAB
VE2AXO	107	72	23,760	SOAB
VE7BSM	100	44	4,840	SOAB
VE2KY	54	43	4,429	SOAB
VE6DJT	16	12	228	SOAB
VE3TL	20	18	666	SO20M

QCWA 2012

Call	QSO	Mult	Score	Category
VE3BNO	8	6	96	CW/Dig
VE3VCF	8	6	96	CW/Dig
VE3CD	8	7	56	PH
VE3XK	7	3	42	CW/Dig
VE3HKG	3	3	9	PH

MISSOURI (MO) QSO PARTY 2012

Call	QSO	Mult	Score
VE7CV	73	34	3,976
VE5KS	45	22	1,618
VA3GKO	46	23	1,158
VE9AA	17	14	576
VA3YOJ	21	13	373
VE4KZ	20	14	280
VE3GXW	12	10	220
VE3XK	6	5	160
VA3PAW	10	8	80

CLARA Contest 2012

Call	Score
VE3JPJ	6,417
VA1YL	5,040
VE3DBQ	4,860
VE1QT	3,864
VE3MIO	3,510
VA3YOJ	2,960
VA3BEC	1,608
VA3WX	1,190
VE3HAI	735
VE5GLF	276
VE7ONY	192

Missing M/Op Scores: 2012 CQ WW RTTY WPX, VE7UF M/M, 3339 QSOs, 806 PFX, score 7,584,460. VB7R M2, 3010 QSOs, 723 PFX, score 6,002,346 VE3FJB M/S 1552 QSOs, 620 PFX, score 3,400,700 VE6AO M/S 1732 QSOs, 486 PFX, score 2,012,526.

SECTION NEWS

THE RAC FIELD ORGANIZATION FORUM

MESSAGE FROM THE RAC CHIEF FIELD SERVICES OFFICER

I hear from a lot of Amateurs from coast to coast. Sometimes it's to follow up on a missing ARES ID card or to chat about a local event. From time to time, folks attempt to draw me into local politics and other nasty, counterproductive matters. When this occurs I am reminded of a term used by my old friend Cal, VO1NY: "guys it's only a hobby!" So yes, it's only a hobby, but it's our hobby. It's ours to enjoy if you are an avid DXer, an Emergency communicator, a technical guru or any other interest that our hobby satisfies.

When politics is injected into the hobby, the fun goes out of it for me. I have heard of folks a week ago sharing coffee and a few laughs, now crossing to the other side of the street to avoid each other. Can you believe it! Is this what Amateur Radio is about?

Keep the fun in the hobby. Next club meeting try a pot luck, a tour or any other activity that keeps the atmosphere light and lively.

My old friend Cal has another saying: "a quiet tongue is a wise tongue." So next time you feel like taking a whack at a Club Executive member verbally, remember that this person is a volunteer who could just as easily be at home with his family.

Volunteers are special. They give tirelessly of their own personal time with no expectation of thanks. So, next time you think it appropriate, thank your local volunteers and show them your appreciation.

ARES ID card renewals

I've heard from a number of you who have expiring ID cards. To renew, simply go to the RAC website and apply as if you are applying for a new ARES ID card. Please make sure that you include an up-to-date photo.

ARES/SURA crests

I now have available a new supply of ARES crests and our newly designed SURA crest. They are $5 each and are available by contacting me.

Well, spring is just around the corner and before long we will be enjoying long summer evenings, weekends at the cottage, boating, fishing, swimming and all the pleasures that make life so enjoyable.

So take care of yourself and family, and remember it's "just a hobby."

Doug, VO1DTM CEC
Chief Field Services Officer

CHIEF FIELD SERVICES OFFICER
Doug Mercer, VO1DTM
Box 1042
84 Main Road
Goulds NL A1S 1H2
Tel. 709-364-4741
Email: vo1dtm@rac.ca

BRITISH COLUMBIA/ YUKON:

SM Paul Giffin, VA7MPG
A/SM Ron McFadyen, VY1RM
A/SM Neil King, VA7DX
STM Al Ross, VE7WJ
SEC Fred Orsetti, VE7IO
SEC (Yukon) Terry Maher, VYIAK
OBM Bill Foster, VE7WWW
OOC: Dennis Wight, VE7IJJ
ACC: Karla Wakefield, VA7KJW

NOVEMBER-DECEMBER 2012 SM REPORT:

Our Regional Director Bill Gipps, VE7ISV, has been very busy of late. He has been attending Hamfests and in late 2012 he travelled to Africa as part of the Lesotho DXpedition. He started 2013 with a presentation on January 8 at the Maple Ridge ARC. He is a hard man to keep down.

Another hard man to keep down is Myles Bruns, VE7FSR. In late December the VE7RLO repeater in Kamloops started acting up. Investigation revealed the tower had collapsed due to high winds and a severe ice buildup. Damage was also noted on Nav Canada and RCMP equipment. For a great pictorial report go to <www.karc.ca>. Great work by Myles and the group to get the system back up and running.

The Yukon Amateur Radio Association has provided a map and other information on their systems in the Yukon. For more information see page 45.

The Section Emergency Coordinator, Fred Orsetti VE7IO, is working hard on updating ARES information. Work continues with Emergency Management BC in efforts to enhance the delivery of communications during times of crisis. The recent earthquake activity has certainly refocused many individuals on the need for this system.

The increase in media attention is also noteworthy. Several groups around the Province have been the subject of media events as Amateur Radio is promoted. In addition there seems to be a greater attempt by many clubs to better advertise their Amateur Radio courses. Those events I am aware of are all added to the BC/Yukon Section's website. It would be helpful if you could email me when your group is the subject of a media event. I know I am missing some events.

Speaking of media events, I was asked about RAC in late December. The following is the response that was posted on the Section's website.

The question was recently asked here in BC "What has RAC been up to lately?". My initial reaction was frustration as RAC both nationally and at the Section level have had a busy year. This frustration turned to a second question: "What more can I do to get the message out?"

I attend as many meetings as possible keeping in mind that the BC Ferries schedule runs my life too. A Section webpage has been created with over 9,000 hits this year (www.va7mpg.ca), a Twitter account (rac_bcsectionmanager – with over 1,000 tweets this year) is also available, a Facebook page is there too. Bill Foster, VE7WWW, has established a very thorough bulletin service throughout the section. Bill's statics are reported in each issue of TCA. The Section presence in TCA has been greatly increased.

On the National level RAC has had a busy year. Some of the items include the establishment of four new Sections in Ontario. This was and continues to be a tremendous amount of work for many volunteer RAC members the decision to lower RAC dues the creation of an electronic version of TCA and The RAC Report newsletter now give members monthly updates on activities.

RAC's participation in the CARAB meeting. This is a meeting between RAC, Industry Canada and government representatives. This meeting addresses issues that involve *all* Amateurs in Canada.

RAC has an active role in the IARU Region 2 events. Improvements continue in the Affiliated Club and Insurance program. Monthly teleconferences (at no cost to RAC) are held for the Field Services Council. This is an opportunity for Section Managers and National advisers to identify and deal with issues in a more timely manner weekly teleconferences (at no cost to RAC) are held for the Training Advisory Group which is rewriting the ARES manual. The development of the National Emergency Database (NARED) continues. More will be heard about that in the coming year.

From the Section perspective nearly all of the Field Services and Section Council positions have been filled. Al Ross, VE7WJ, the Section Traffic Manager, continues as the net manager of the only NTS phone net in the Province. He also offers NTS training to anyone or any club in the Lower Mainland. Mike Hale, VE7GN, has created and maintains an NTS Manual for those interested in learning how to handle formal written traffic. This Manual has been endorsed by National HQ.

The folks in the Yukon have continued to improve their repeater system. This system enhances not only safety, as demonstrated by the Kluane Chilkat Race communication system and the response to the massive communications failure that occurred earlier this year in the Yukon, but to the public service side. This system is available to Amateurs that travel through northern British Columbia, the Yukon and parts of Alaska.

The Yukon Amateur Radio Association (www.yara.ca) is a group that is a model for others. Working under harsh conditions they are always available to their communities.

Karla Wakefield, VA7KJW, is our Affiliated Club Coordinator. RAC is working hard to get dialogue from the bottom of the organization to the top thus creating a two-way street to improve the organization. If you have a question or concern feel free to contact Karla or myself.

Fred Orsetti, VE7IO, is the Section Emergency Coordinator. He is working hard with emergency management to enhance the emergency communication abilities in the Province.

In the summer of 2012 the Section, RAC HQ and Industry Canada all worked to resolve the incursion on Amateur frequencies by the national paragliding association.

In October 2012 the large earthquake in Haida Gwaii caused the BC Northern Net and Emergency Management British Columbia to respond. This provided a real life opportunity to test the response systems. Emergency Management BC and the Section Team are working to provide an even better response system.

Over 500 Amateur Radio operators registered to participate in the Great BC Shakeout. Many ARES groups participated in events that occurred during the week around the Shakeout.

The increasing use of APRS by ground Search and Rescue teams continues to evolve. One team on Vancouver Island now uses APRS on every search for their ground teams and any air assets.

The National Organization and the Section have had a very busy year. The amount of hours put in by the volunteers that keep RAC going is truly astounding. When I started this job in November 2011 I had no idea (although I thought I did!) of the amount of time, effort and knowledge people give to RAC. RAC is continually trying to improve the product they deliver to Amateurs in Canada.

I hope this post helps answer the question "What has RAC been up to lately?"

Official Bulletin Report
Bill Foster, VE7WWW
Official bulletins relayed:
November: 57
December: 39

Public Service Honour Roll
November 2012:
VA7MPG 166; VE7GN 166 and VE7WJ 100.
December 2012:
VA7MPG 78; VE7GBO 100; VE7GN 160; VE7WJ 100 and VE7WWW 114.

– 73, Paul, VA7MPG

ALBERTA:

SM: Garry Jacobs, VE6CIA
SEC: Curtis Bidulock, VE6AEW
STM: Jack Humphries, VE6JRH
OOs: Tom Martens, VE6TRM
Don Momen, VE6JY

NOVEMBER-DECEMBER 2012 SM REPORT:

Stampede ARES

DEC Doug, VE6CID
Edmonton ARES

It's really been good in Southern Alberta for 2012. The achievements in Amateur Radio standout in our area and are being noticed in the various meetings of clubs and organizations. At the Christmas party the interest in ARES was overwhelming. The organization has formed a partnership of friends to create an ARES team to be there when needed. Moving forward this group Stampede ARES should be able to make a difference and providing Amateur Radio communication when needed.

Another achievement has been teaming up with the City of Calgary Emergency Operations Centre (EOC) and creating a partnership in providing communication when we are needed as Amateur Radio operators.

The city has put some big dollars into the setup of this site. There is a brand-new IC 2820, FT-2000 and IC-7000 as a backup; power supplies and filters; and dual UHF/VHF antennas. As for HF we have a G5RV ready to be deployed when needed.

All this is managed under the city of Calgary EOC and I have been asked to assist with the Radio management, and ARES is to use it once the site is ready. There has been a number of people involved with setting up the hardware for this site. In addition, several Amateur Radio operators participated in testing the equipment and making sure that we were able to communicate from the EOC.

Bringing back the fun in Amateur Radio as a hobby we been able to partner with our fellow radio operators and create a way of having fun utilizing what we already know.

The vision for 2013 in southern Alberta is to have fun with the hobby, learn from each other, and to partner up with the predictable future achievements of ARES. The Calgary area needs to learn how to work together again and to listen to the leaders that we are following.

Edmonton ARES

SEC Curtis, VE6AEW

I would like to welcome Lee Johnson, VE6XE, as the new EC for ARES Peace Country. Otherwise it has been fairly quiet over the last few months.

Lethbridge ARES

EC Gary, VE6CV

I met with the members of the Lethbridge Senior Citizen's Organization Amateur Radio Club. I talked to them about ARES and what we can do and can bring to the table. There was a motion made and passed and carried for the club to join RAC. I think that with a little more time and more activity in the radio world, I hope to bring more goodies to the table!

AEMA Conference

EC Gary, VE6CV

The Alberta Emergency Management Agency conference was held in November and was attended by SEC Curtis, VE6AEW, DEC Doug, VE6CID and Gregg, VA6GMC. Good information was exchanged with the Emergency Services sections in attendance and the RCMP K Division approached the Amateurs regarding reviving the Amateur Station setup they have.

Thanks one and all for the reports and please keep them coming.

– Garry Jakobs, VE6CIA

MANITOBA:

SM: Jan Schippers, VE4JS
STM: Jan Schippers, VE4JS
SEC: Vacant
DECs: Jeff Dovyak, VE4MBQ (Capital Region and CanWarn); Gord Snarr, VE4GLS (South-East Central Region / South-West Region); Wayne Warren, VE4WR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region).
EC Ron Wlliscroft, VE4QE (Selkirk and District); Bill Boskwick VE4BOZ for RM of Grey, RM of Dufferin & Town of Carman

NOVEMBER-DECEMBER 2012 SM REPORT:

Winter, time to play radio and start on your antenna projects. Time to go for those eyeball QSOs at our weekly morning coffee. I hope everyone had a good Christmas and a prosperous New Year as the world did not end. I have to give our education guru David Rosner, VE4DAR, many thanks for putting on basic courses and getting new amateurs on the air.

Winnipeg ARES

Jeff Dovyak, VE4MBQ

City of Winnipeg Emergency Preparedness Coordinator, Randy Hull, and his colleagues on the Manitoba Disaster Management Conference Planning Committee facilitated attendance of three ARES members from November 7 to 9. Winnipeg ARES was represented at the conference by Winnipeg ARES PIO Jim Sutton, VE4SIG and EC Jeff Dovyak, VE4MBQ. Portage ARES EC Bill Simm, VE4ALW, was also able to attend. From my perspective it was an excellent use of three vacation days. The speakers and topics were very interesting and the networking opportunities were immeasurable. We can't thank Randy and his fellow committee members enough!

City of Winnipeg Manager of Web Development, Ashley Sokal, and alternate Emergency Public Information Team (EPIT) Coordinator Pam Sveinson delivered a presentation on "Using Social Media for Emergency Public Information" at the November ARES General Meeting. This was a great presentation and one that Ashley and Pam gave at the recent Disaster Management Conference. We have a lot of thinking to do within ARES with regard to increasing the use of Social Media, particularly with respect to Emergency Operations. You can follow us on Twitter @wpgares.

Derrick Saedal, City of Winnipeg Public Works Emergency Coordinator / Supervisor of Underground Structures gave us a very interesting presentation at our December General Meeting on "The Role of Public Works in Emergency Management". Welcome to Mark Havens, VE4MWH, who recently joined Winnipeg ARES.

Manitoba Marathon

Jeff Dovyak, VE4MBQ

The 2013 Manitoba Marathon will be held on Sunday, June 16. If you volunteered last year we'd like you back for the 35th anniversary Marathon. If you are a new Amateur we will pair you up with someone who has done the event previously. The 2013 Amateur Radio Group Volunteer Briefing will be held on Tuesday, June 11 at the Norwood Community Club 87 Walmer (Map 17 C8 in the Sherlock map Book). We will begin distribution of race information, documentation, volunteer T-shirts and pre-arranged equipment loans at 6:15 and the Briefing will follow at 7 pm. If you register as an Amateur Radio volunteer and cannot attend the June 11 briefing please let us know in advance who will be attending to pick up your briefing materials and volunteer T-shirt. There will be an additional Medical Team briefing on another date for those assigning to the medical side.

It is greatly appreciated if the completed volunteer registration form is returned to me via email (saves lots of retyping), but it would be preferred if you register online through the terrific form that WARC Webmaster Mark, VE4MAB, has set up at <http://winnipegarc.org/marathon.html>. For the 2012 Manitoba Marathon we had 81 Amateur Radio volunteers (85 would have been better). The sooner registrations are submitted the sooner we can start working on the 2013 roster. We need a completed new registration form from each Amateur Radio volunteer every year regardless of what Amateur organization they belong to.

VISIT THE RAC – CAFÉPRESS ONLINE STORE
http://www.cafepress.ca/rac_radio

Manitoba ARES Update

Winnipeg ARES tends to communicate its successes and challenges quite publicly but often the other ARES Units in Manitoba are not heard from.

In late August, Bill Boskwick, VE4BOZ, was appointed as EC for RM of Grey, the RM of Dufferin and the Town of Carman. Bill has hit the ground running. Recently, he met with RM of Grey Fire Chief, the Municipal Emergency Coordinator and the MB EMO Regional Emergency Manager to discuss expanding the existing Fire Hall to include a new EOC (and with Bill's advice feedline and Amateur Radio antenna). Bill most recently met with Joint Emergency Preparedness Planning Committee from the RM of Dufferin and Town of Carman to present the merits of ARES as a resource in an emergency. Bill did such a good presentation that the committee members support the installation of an external antenna and feedline into the MEC's office next to the EOC.

In September, RM of Springfield EC John Gowron, VE4ADS and RM of Portage EC Bill Simm, VE4ALW, successfully completed the Manitoba Emergency Management (MEM) Course conducted by Manitoba EMO in Beausejour.

Special Projects DEC Wayne Warren, VE4WR, participated in a Public Safety Canada Communications Exercise mid-October that involved an earthquake scenario in British Columbia.

Traffic Totals
November: 8
December: 15

ONTARIO NORTH:

SM: Al Boyd, VE3AJB
Email: ve3ajb@vianet.ca
STM: Pat Dopson, VE3HZQ
Email: dopsonp@vianet.ca
SEC: Dave Hayes, VE3JX
Email: ve3jx@bell.net
OBM: Paul Caccamo VA3PC
Email: va3pc@ciinet.org
Website: http://ontario.racares.ca

NOVEMBER-DECEMBER 2012 SM REPORT:

I am very pleased that a member of the Northern Field Services has been chosen as the New Section Traffic Manager. After much discussion the Section Managers of Ontario were pleased to announce the appointment of Pat Dopson, VE3HZQ as the Manager of the Ontario Phone Net (OPN), effective January 2. Mr. Dopson is the Section Traffic Manager of the Ontario North Section and has a wealth of experience working traffic nets in Canada and the United States.

The Section Managers also wish to thank Shawn Gartley, VE3PSV, for his commitment to the net, acting as interim Manager following the retirement of the previous Manager. The Ontario Phone Net is the primary traffic net for the province of Ontario and operates daily on 3.745 MHz +/- QRM at 19:00 ET.

I thank each of you for your continued commitment and hard work to the program your efforts are recognized and appreciated.

SEC Report:

Dave Hayes VE3JX

This is my first report as SEC. I made contact with the DECs and some ECs from the Section. There is much progress being made in different areas of emergency preparedness. For example, experimentation and implementation involving text messaging/email capabilities is being accomplished in the Section, with Winlink (both HF & VHF access), and D-Star facilities being installed and utilized. It is a great honour and privilege to be part of our Section's progressive ARES program.

Albany District:

Sault Ste Marie:

DEC Dave Hayes, VE3JX

With the DEC being appointed to the SEC position, we have been actively looking for a replacement for both DEC and EC-Soo jobs.

We are pleased to announce that Brent MacMillan, VE3OTL, has been appointed as EC for Sault Ste Marie and Area. Brent has a long history in ARES and he has formerly held EC & DEC positions locally. With his in-depth knowledge of ARES and telecommunications systems, Brent is the ideal choice for this position.

We are happy to report the appointment of Dave Pitcher, VE3DPT, as AEC in the Soo's ARES team. Dave has been an ARES member for several years and he has helped out with the repeater systems and their emergency power setup. He is a also welcomed addition to our local group's management.

Echo Bay:

We are very sorry to report that EC Roy Brockelbank, VE3FOD, passed away on November 17. Roy was a pillar in the Amateur Radio community as well as the community at large and he will be terribly missed by all who knew him.

Dave Campbell, VE3EGC, has been appointed as EC for Echo Bay & Laird Township. Dave has been very active in that local ARES group and he is the logical choice for this assignment. His extensive technical background and commitment are great assets to our ARES program.

Elliot Lake:

EC: Davis Sutherland VE3SUT

We supplied communications and traffic control for the Christmas parade We had nine members taking part: Al, VE3VKP, Terry, VE3EXV, Andy, VA3ERP, Dave, VE3NLZ, Ron, VE3NDI, George, VE3AGP, Richard, VE3UYC, Dave, VE3SUT and Grace, VE3HZB, coordinating.

Timmins:

EC: Don Tambeau, VE3HOL

Don reports that he had to replace the antenna on the VE3AA FM repeater. Due to its location, VE3AA has good geographic coverage.

Amethyst District

DEC: Fred Lesnick, VE3FAL

Daily and weekly net sessions continue on HF and VHF as well as the IRLP nodes.

Tuesday 2M/ LARC ARES Net on VE3YQT 147.060- @ 7:00 pm ET, and after this net is the new Thunder Bay ARES Digital Net on PSK31 between 1000 & 2000 waterfall on 145.050 FM mode @ 7:30 pm (usually starts after the 2m/ ARES net.)

The Northwestern Ontario ARES Net continues daily on 3.750 at 2015 Eastern Time.

Many thanks to all ECs for all of their work and effort.

Thunder Bay:

EC: Brad Harris, VE3MXJ

The LARC helped out with the annual Santa Claus Parade on November 17.

Atikokan:

EC: Warren Paulson, VE3FYN

With assistance from Lori, VE3VAI, we have been testing HF Winlink operations between Atikokan and Thunder Bay, with great success on 40 and 80 metres. We have found Winlink valuable as a mailbox-type server when not connected to the Internet. We are looking forward to having more ECs from the Rainy River and Kenora Districts to come on board so we can develop an HF data infrastructure for this area.

We are also looking into using our APRS digipeaters as a backbone for a packet data network for emergency communications. NWO West of Thunder Bay has a tremendous network of digipeaters, which receive very little traffic. We are identifying key digipeaters that will benefit from backup power. We have also identified issues with some of our digipeaters that will not properly digipeat messages, and are working at re-programming them.

Finally, several Amateurs in the region have been testing sending and receiving short messages on our APRS network without Internet connectivity. This network may prove quite valuable as an emergency communications tool.

Killarney District

DEC: Stiig Larson VE3LBX

Manitoulin and North Shore:

EC: Jim Mclean, VE3LJM

A new UHF repeater was installed in Assiginack Twp, VE3RII on frequency of 444.175 MHz, 156.7 PL, antenna installed on fire tower behind Municipal garage. Great coverage to Manitowaning area and Highway 6 North. Another tool for ARES.

A "newbie" day for recent grads of the last radio course is in the works for the near future. Participants will receive assistance with the programming and general operation of their radio equipment,

RAC FIELD ORGANIZATION REPORTS

National Traffic System (NTS) Net Reports

Net (Manager)	Sessions	QNI	QTC
November 2012:			
Alberta ARES	12	225	15
Alberta Aurora (VE6TRM)	30	1657	0
APSN (VA6IX)	30	1651	6
BCEN (VE7XLH)	30	250	34
BCYTN (VE7WJ)	30	577	39
CECA (VE7GN)	4	57	14
MEPN (VE4LB)	23	426	3
MMWXN (VA4GD)	30	534	2
MRS (VE4HK)	9	334	0
MSMN (VE4AEW)	22	711	0
December 2012:			
Alberta ARES	12	253	12
Alberta Aurora (VE6TRM)	31	2065	0
APSN (VA6IX)	31	1472	15
BCEN (VE7XLH)	31	163	19
BCYTN (VE7WJ)	31	406	50
CECA (VE7GN)	4	47	5
MEPN (VE4LB)	30	530	6
MMWXN (VA4GD)	31	618	4
MRS (VE4HK)	9	369	0
MSMN (VE4AEW)	21	671	0
OLN (VE3SHM)	31	394	31/31
OPN (VE3XRC)		4	

be shown how the D-Star and IRLP systems work, and introduce them to the virtues of ARES and why they should get involved. This will be open to all Amateurs and anyone interested in Amateur Radio.

Sudbury:
EC: Alan Viitala, VA3AJV

Sudbury ARES was once again asked by the Greater Sudbury Police to provide communications support for the annual Sudbury Santa Claus Parade which was held in Sudbury on November 17. ARES members that helped out at the event were AEC Wayne, VE3THN, Adam, VA3AIO, Art, VE3COG, Gord, VA3GJJ, Catharine, VE3CYM, and EC Alan, VA3AJV. A huge thank you for your support!

ARES Training sessions and regular meetings continue and work has begun with creating a formal SOP with the Greater Sudbury Police. We are getting noticed more by the police for what we do in the community and I have to thank my AEC Marc, VE3SNA, for all of his hard work and commitment to ARES for getting us more support from the police!

I would like to thank my team of AECs for their continued support and work with our ARES unit, great work! Many great achievements have been made and more are being worked on and coming down the line. Thanks Wayne, VE3THN, Mike, VE3WMJ and Marc, VE3SNA for your support, it's appreciated!

Also many thanks to our ARES members, we had two new members join our team! I look forward to the new year!

Chapleau:

Chapleau's Les Arnott, VE3UCW, was able to informally introduce ARES to Wawa emergency people and the capabilities of Radio Amateurs in the type of situation they experienced in the area this month. Les is our ARES "Ambassador" to both the Chapleau and the Wawa areas. (Wawa is actually within the Albany District. Les' job covers both towns, making him a cross-District resource.)

DECs reporting:
VE3s: LBX, JX, FAL
VA3's: PC
ECs reporting:
VE3s: LJM, SUT, RQR, JX, MXJ
VA3s: AJV, and SPT.
Official Bulletin Stations
OBM Brad Rodriguez, VE3RHJ
November-December 2012:
VA3BIX, VA3RRZ, VA3STG, VE3GIO, VE3JUZ, VE3KII, VE3SHM, VE3VBR and VE3VY.

ONTARIO SOUTH:

SM: Ian Snow, VA3QT
SEC: Scott Carter, VE3CGN
SBM: Brad Rodriguez, VE3RHJ
STM: James Davidson, VE3TPZ
Website: http://ontario.racares.ca

NOVEMBER-DECEMBER 2012 SM REPORT:

I will begin this report by thanking SEC Scott, VE3CGN and SBM Brad, VE3RHJ, for their continued service in ONS, and welcoming James, VE3TPZ, to the Section management team as our Section Traffic Manager. Pat Dopson, VE3HZQ, who has accepted the appointment of the Ontario Phone Net Manager for the province as a whole. Thank you also to Shawn Gartley, VE3PSV, who took on the OPN management functions while the position was gapped. Carlo Salvitti, VA3CSS, is taking on the role of Section webmaster. Congratulations SEC Scott on completing the EMO EM-125 and 900 course packages.

You will notice that this section report is abbreviated, a necessity given the new sections but the same allocation of space in TCA. Note that there are separate TCA pages for Club Corner and Public Service/ARES pages to take advantage of for more descriptive contributions. Let's take advantage of this. The management of emergency responses across Canada has changed significantly, a change that continues as common standards and procedures adopted. The Ontario ARES community is represented on the "Province of Ontario Interoperability Task Group" (POINT), a government sponsored stakeholder steering group overseeing the implementation of the Incident Management System (IMS) in Ontario. The POINT representative is one of the four SMs, currently Ontario-South. To be interoperable with this new system ARES must adapt accordingly, just as our traditional clients are.

In April, a conference for ARES Group leaders will be held to outline the steps the RAC Field Organization has taken to produce a common set of ARES training programs and certifications, and to gain EC input into an ONS implementation process (government liaison is at the Ontario Provincial Council level). I am looking for volunteers to fill the remaining Section leadership positions: Affiliated Club Coordinator, Public Information, and Technical Coordinator. Please email me at <va3qt@rac.ca> if you have interests in these areas or know of an Amateur who would like to contribute their talent in one of these areas.

You are reading this report because you are a member of RAC. As RAC members we bear a special trust because it is we who elect the Regional Directors and Section Managers – a trust that materially influences the quality of service that RAC provides not just to us but to the Amateur community as a whole, including representation to the Regulator and the international Amateur Radio federations. Please exercise this trust responsibly by taking the time to nominate and elect competent persons as your RAC Director or Section Manager.

SPECIAL EVENT K5B BATAAN MEMORIAL

The Mesilla Valley Radio Club (MVRC) of Las Cruces, New Mexico will be operating Special Events Station K5B on March 17. This operation is in conjunction with the 24th annual Bataan Memorial Death March Marathon event to be held at the nearby White Sands Missile Range. More information about the event is available at <http://www.bataanmarch.com>.

K5B will operate from 1000Z to 2300Z on or near 21.337, 14.330, 7.225 and 3.893 MHz. Most of the activity will likely be on 20 metres.

A commemorative QSL card will be available by request. Please QSL with a self-addressed stamped business sized envelope to Special Events Station K5B in care of the Mesilla Valley Radio Club,

PO Box 1443, Las Cruces, NM 88004-1443, USA. All QSL requests must be received by Friday, April 26. DX stations can send IRCs or their QSL can be sent back to them via the ARRL incoming QSL bureau. Please allow four to six weeks after the deadline for delivery.

More information about K5B can be found on the MVRC website at <www.n5bl.org/bataan>.

100TH ANNIVERSARY OF CANADIAN ARCTIC EXPEDITION

Sponsor: Robert Emerson, VE3RHE

Date: Saturday, June 1 to Monday, July 1.

Place: Mississauga, Ontario.

Description: Special Event Station CK3C celebrating the 100th Anniversary of Canadian Arctic Expedition 1913-1916. Expected frequencies are 28.490, 21.290, 14.290, 7.143. Visit <http://events.ve3rhe.ca/ck3c> for updates. QSL card will be available via VE3RHE.

Information: For more information, please contact <ve3rhe@rac.ca>.

Webpage: http://events.ve3rhe.ca/ck3c/

Elgin County ARES:

Welcome to Worth Chisholm from the Elgin Amateur Radio Society who has agreed to be EC for Elgin County. Worth will be assisted by two AECs from the club. Appointments pending receipt of application forms.

Bruce County ARES:

Due to the regular meeting date being so close to Christmas we had no December meeting and there are no other activities to report. Tim Eaton, VE3RTE, Bruce EC

Dufferin County ARES:
EC Wayne McLean, VE3WWM

The topic at the December meeting was D-Star and other digital modes, given by Jason Myles, VE3TYG. Jason showed some pretty graphs, charts, pictures and some really cool hardware. He discussed digital voice modulation in general and its impact on spectrum (which is astonishing), information that is necessary to form an opinion on any mode.

Grey County ARES:
EC Bob Droine, VE3LKD

I had to reschedule a presentation I was to give to the Grey Bruce Health Services' Contingency Planning Committee in December. I was asked to speak to them about the possibility of incorporating Amateur Radio services into the contingency communication plan for our regional hospitals. I should be at their first meeting in 2013 instead.

ONTARIO EAST:

SM: Michael Hickey, VE3IPC
Email: ve3ipc@gmail.com
SEC: Scott Carter, VE3CGN
Email: ve3cgn@g-mail.com
OBM: Brad Rodriguez, VE3RJH
Email: ve3rhj @ rac.ca
OBS reporting: VA3BIX, VE3KII, VE3VY
Website: http://ontario.racares.ca

NOVEMBER-DECEMBER 2012 SM REPORT:

Let me begin by wishing you and your family the best of 2013. This is my second report to you the Radio Amateur community within this Section. I am looking for volunteers to fill three Section leadership positions: Section Emergency Coordinator, Affiliated Club Coordinator and Technical Coordinator. If you are, or know of an Amateur who would like to lead in either capacity, or to learn more about these positions, please contact me. For more information about these positions please see the article on the next page.

I don't have much to report this time regarding the Section level, however I would like to touch on an important issue regarding emergency radio communications. Please see the article on "Sub-Tropical Storm Sandy – A wake-up call" which is featured in the Public Service / ARES column on page 42.

Loyalist ARES District report:

The Loyalist ARES District meeting was held by the new Loyalist DEC George, VE3SIQ, on Saturday, November 10, in Picton, Ontario and representatives from all four groups were in attendance. We spent the morning going over RAC ARES policy and rules, and let the ECs know what the expectations are on how the District and Section should work. We also discussed training standards. Our next district meeting will be held in April 2013.

The theme of the meeting was the new organization of the Ontario East Section and the introduction of the new Section Manager, Michael Hickey, VE3IPC, and the RAC ARES policies. A PowerPoint presentation was given explaining the rules under which we will now operate. It was explained in some detail that these rules are not new rules, but in fact have been on the books for many years, but the previous Section Manager chose not to enforce them.

In attendance were the following officials: George, VE3SIQ – DEC; Kevin, VE3KJG – ADC Log for Prince Edward ARES; Matthew, VE3OCC – ADC Admin for Prince Edward ARES; Peter, VE3UR – EC Hasting County ARES; Bill, VE3CLQ – EC Frontenac EmComm; Bill, VA3WOW – Past DEC; Rod, VE3RXE – EC for Kingston ARES; Drew, VE3UIN – Member of Kingston ARES; Regrets: Doug, VE3ZDG – EC for Prince Edward ARES (due to death in family).

The Frontenac Emcomm group held their monthly Emcomm exercise on Sunday, November 18. Simulated emergency traffic was passed from three fire halls in South and Central Frontenac to the County EOC and a relay station was put in place on Fort Henry Hill. All traffic was passed on simplex frequencies to simulate the repeaters being off the air.

After the simplex portion of the exercise, the improved 70 cm link to the VE3FRG 2m repeater was checked from the fire halls. All locations were able to hit the new 70 cm antenna, which gives us another option in an emergency. The 70 cm link is on 434.800 with a 203.5 tone.

Severn ARES District report:

The Peterborough ARES group in November conducted radio checks at the County Courthouse and the City Police Station that were done by Robert, VE3KEA and Rick, VE3IQZ and EC Terrence, VA3MTT. Pricing will be submitted for a couple of new antennas to replace damaged ones.

Peterborough ARES held their first scheduled evening information meeting for members and the general public on November 13 at a local High School with 25 people in attendance. Many good reviews were heard afterwards on the lengthy PowerPoint that explained ARES to new prospective members and provided some education to our active members regarding our upcoming IMS-100 session that we will run in January. All teams were reviewed and a lot of open discussion was had regarding everything from equipment to third-party messages.

A new system of communications has begun with the local EmComm team and a very productive meeting was held with the City and County representative, with a goal in mind for future expansion of our cooperation on several fronts. Robert, VE3KEA and EC Terry, VA3MTT, were in attendance. ARES Peterborough is also looking at having all members acquire RAC ARES vests and white shirts with ARES badges.

Rick, VE3IQZ, has taken on the job as Official Bulletin Station (OBS) for Peterborough ARES and has been reading them on our weekly Wednesday night net on 146.625 at 7 pm. We have received good feedback from members and non-members regarding the Ontario bulletins.

In December, the Peterborough ARES group conducted radio checks at the Local EMS building and the Main fire hall on Sherbrooke Street. The radio checks were conducted by Robert, VE3KEA and Rick, VE3IQZ. Quotes have been submitted for new antennas at the Police station and fire hall. A meeting is planned for early January.

Several ARES members entered a float in the local Santa Claus parade with a nice little Santa's radio shack attached. Contacts were made on local 2m repeaters and also on 20m HF. Propagation was not in favour or a contact with Santa. Maybe next year. Barry VE3BLM, Teresa, VE3TZM, Rick, VE3IQZ and Mary, VE3JTM, were all happy to take part in the parade. December was a quiet month overall.

Eastern Ontario ARES District reports:

The Stormont, Dundas and Glengarry (SD&G)-ARES group net has now been expanded to include check-ins on VE3MTA and our D-Star repeater. This confirms the serviceability of these repeater systems at least once a week should they be required by ARES. Our expansion to "SD&G ARES" from the former "City of Cornwall ARES" continues.

In light of this, on August 29, along with City of Cornwall CEMC Bradley Nuttley a team of Amateurs attended the former Cornwall City Hall EOC and the fire hall on 2nd Street to remove the ARES equipment. The equipment is now at the home of the EC ready for deployment to any of the townships where we will provide emergency services. The finalized version of the SD&G ARES agreement with the Township of South Stormont was adopted by the council from the township on September 26. At the request of Bill Shearing, VE3UTG, Doug, VE3HTR, Ed, VE3FHI and EC Earle, VE3IMP, delivered a presentation to the CEMSs from the seven townships at the United Counties of Stormont, Dundas and Glengarry at 26 Pitt Street in Cornwall. The presentation explained: Amateur Radio, ARES, the current situation of SD&G ARES and plans for the future. Our 20-minute PowerPoint-based presentation ended with a demonstration of our autopatch on the VE3SVC repeater as well as a demonstration of IRLP to contact an Amateur in Oakville to round out the demonstration.

The Renfrew Country West (RCW)- ARES group: On November 14, AEC Richard, VA3BIX and EC Bob, VE3YX, attended the Semi-Annual EMO Sector meeting for our area held in Pembroke. David Prange from Arnprior spoke about the need to update school emergency plans. Betsy Sayers, CEMC for Greater Madawaska, spoke about the emergency response to the many Microburst events that occurred on July 23 this year. Although there was no need for ARES involvement in this situation, Betsy did put in a plug for ARES at the end of her talk. Renfrew County East ARES has been assisting Greater Madawaska with communication issues. Peter Kimbell from Environment Canada talked about the types of weather warnings available to CEMCs. Ann Turney from AECL Chalk River talked about the EMO "Huron Challenge Exercise" that took place in the Bruce area during the week of October 15. There was also a talk about 211 and how the system could be used to provide information to the public in the event of an emergency.

The City of Pembroke will be changing from a city police force to the OPP sometime next year. The existing police station will be closed and, since the EOC was in that building, a new EOC is being established in City Hall. On November 20, EC Bob, VE3YX, met with Colleen Sauriol, the Pembroke CEMC, and the building inspector to plan an ARES antenna installation for the City Hall to support the EOC. Locations for the antenna and feedline were found and an ARX2B and COAX are to be purchased by the City. Bob will assist with the installation and tuning of the antenna when it has arrived.

HELP WANTED: ONTARIO EAST SECTION LEADERSHIP MANAGEMENT POSITIONS AVAILABLE

Section Emergency Coordinator (SEC): The Ontario East Section Manager (SM) is looking for someone with years of experience as a DEC preferably, but will consider an experienced and dedicated EC who understands the bigger picture for ARES and who lives within this Section. Scott Carter is doing what he can as the current SEC, however Scott is unfamiliar with this Section's geographic regions, its history and is not familiar with the ARES leadership teams. For that reason only do I seek an SEC within this Section. This position requires someone with leadership skills who is self-motivated and personable. As the new SEC you will benefit from the work already done by the current SEC and from the SM's 14 years of experience at most levels within ARES. Much of the groundwork has been done, but more work is needed. For more information regarding this engaging ARES position, please contact the SM directly at <ve3ipc@gmail.com>.

In addition, the Ontario East SM is looking for two candidates to become Assistant Section Managers: one as the Section Affiliated Club (Liaison) Coordinator and one as the Section Technical Coordinator.

The **Affiliated Club (Liaison) Coordinator** management role will be to assist clubs with internal administration advice, where appropriate, and consistent with the Affiliated Club President's Workbook, assist club's with keeping club contact information current on RAC websites, promoting joint club activities and programs across the Section, and encouraging clubs to join RAC as an Affiliated Club. As the Club (liaison) Coordinator you will seek to promote and work with each "club liaison" person of each club within this Section as each club liaison volunteer is identified and comes on board.

The **Technical Coordinator** management role will be to facilitate club and local Technical Specialist involvement in RAC technical committee activities, to facilitate responses to Industry Canada papers and enquiries, and to assist with questions of spectrum management or interference.

For more information regarding the SEC position – or on either Assistant Section Management (ASM) position – please contact SM Michael Hickey at <ve3ipc@gmail.com>.

– Michael Hickey, VE3IPC, Ontario East Section Manager

Deep River is also in the process of establishing an EOC in the town building. In the next week or two, EC Bob, VE3YX, will be looking at options for the radio room and an external antenna.

The Renfrew County East (RCE)-ARES group has a few less members now; they have gone to the land of the snowbirds. Lucky people! This cut our numbers down a bit, but the group will maintain readiness as always. EC Ron, VE3JRN, is on the mend from his knee operation and getting around better. A pumpkin patrol was carried by members of the group in Arnprior and Renfrew in during October.

On November, 1, the EC and AEC Jim, VA3JER, travelled to Pembroke to take part in the RCW's SET for the year. Ron and Jim were at the Pembroke Red Cross Station to see the use of Packet radio for an emergency situation. It was a learning curve for the RCE ARES group and we will need to work on lessons learned. We need to plan and work towards improving our group's communications coverage for future emergency's. Thanks go to two of the RCW ARES group members Richard, VA3BIX and Robert, VE3AGN. In November the RCE ARES group looked at providing Bromley Admaston Township to help them with Amateur Radio communications set up of their stations and antennas (submitted by AEC Jim, VA3JER).

The Ottawa ARES/EMRG AEC Mike, VE3FFK and Norm, VE3LC, who represented RAC CFSO Doug Mercer, attended a discussion sponsored by the Canadian Interoperability Technology Interest Group (CITIG) about whether the approach to interoperability taken in the downtown Toronto core could be used in Ottawa. Later in the month EC Richard, VE3UNW, attended a seminar on the interdependencies of critical infrastructure and the implications of those during an earthquake event. Both were good opportunities to get to know the other "players in the game" as well as to pick up some insights to the emergency operations process as practiced in Ottawa.

The Ottawa ARES/EMRG group held a "test and tune" session jointly with the Ottawa ARC, in preparation for the Tall Pines Car Rally, which was held later in the month. This November session was the first in decades in the area and was designed to gather people, tools and expertise in one place so Amateurs helping with the rally could program radios, install connectors and test cables and antennas before deploying to the field. It was a success and will probably be repeated before the Canadian Ski Marathon early next year. Participating were Arthur, VA3BIT, Harold, VA3UNK, Wayne, VE3CZO, Mike, VE3FFK, Rick, VE3IHI, Richard, VE3UNW and Alan, VE3ZTU.

The monthly test of EMRG voice and digital systems and the Ottawa ARC repeater were conducted successfully. The test was headed by Dave, VE3KMV, with the participation of Ron, VA3ACZ, Arthur, VA3BIT, Paul, VE3CPH, Mike, VE3FFK and Stuart, VE3SMF.

The Rally of the Tall Pines was held in Bancroft, Ontario on November 24 and there was EMRG participation. There was a lot of damage but fortunately only to vehicles. Damage to people was minimal. However, we did have an overturned Propane truck to deal with, just to make things other than routine. Of the 71 Amateurs who assisted in the event, the following were from among the EMRG: Jamie, VA3JME, Mike, VE3FFK, Rick VE3IHI and Alan VE3ZTU. (submitted by AEC Mike, VE3FFK). For more information on the Rally of the Tall Pines see the article on page 28.

The Lanark North Leeds (LNL)-ARES group reports that the Almonte Amateur Radio Club (AARC) members have fitted two additional antennas to the tower at the Almonte General Hospital to permit operation on all bands including 23 cm voice and data. Rob, VE3UIX, President of the AARC, further reports that equipment provided to the club under the Joint Emergency Preparedness Program (JEPP) will be installed in the room, kindly provided to the AARC by the hospital, and which will act as the EOC for both hospital and Mississippi Mills in the event an emergency is declared. Coverage tests on the club's D-Star (DV) and FM repeaters is planned to take place in the next two months. We will then have a picture of signal strengths and know what equipment will be needed to establish communications in an emergency. Last month the club is pleased to have welcomed three new members.

LNL-ARES' member Art, VE3CGD and AEC Norm, VE3VY, attended the Rideau Lakes Township Emergency Planning Meeting at which the latest Township Emergency Manual was presented for review. LNL-ARES will submit an updated version of their information. Contact was established with the Red Cross representative, who is under contract to the Township for Social Services activities.

Rideau Lakes Township antenna tests were carried out at Chaffey's Locks Community Centre by Clair, VE3BAC and Norm, VE3VY. Repairs were carried out at the North Crosby Hall by George, VE3CGD and Norm, VE3VY. (Submitted by AEC Norm, VE3VY)

The Ottawa ARES / EMRG group activities for December 2012 started on the fifth with the usual monthly repeater check, headed by Dave, VE3KMV. The repeaters were still working as they should. All repeaters checked were OK with the usual minor anomalies. Thanks to Paul, VE3CPH, Bob, VA3QV, Mike, VE3UMC, Arthur, VA3BIT and Stuart, VE3SMF. Arthur usually checks in bicycle mobile, which is a good test due to fairly low ERP and low height, and a mix of stationary and mobile operation.

AEC Mike, VE3FFK, reported EMRG packet BBS and Winlink node were operating normally as was VE2CRA voice RPT. Stuart also reported packet BBS was working fine.

Richard, VE3UNW, received and shared some feedback from the "Understanding Interdependence" seminar from the previous month. The main point seems to be that information sharing processes need to be re-enforced. Getting together to talk with the other players seems to be a good first step.

Peter, VE3BQP (former EC and now EMRG's public relations person to the City of Ottawa), reports that another three-year agreement with funding has been signed with the city, continuing a process that began in 1996. This is the most tangible form of proof of the commitment the City has to EMRG (and vice versa).

As part of the changes Ottawa Fire is making to their station at the Barrhaven section of Ottawa, they will be moving the VA3OFS repeater within the building. At the same time, it will be upgraded to a Kenwood TKR-750 with a new backup battery. The antenna will be upgraded in the spring and the long-delayed UHF repeater will go in at that time. As all this is going on, we have been asked to provide a presentation to them so they can better understand who we are and what we do.

Now that the radio equipment is installed at Ottawa Red Cross, the next step will be to install a packet station there so they can exchange text traffic with their counterparts in neighbouring districts.

All in all, although it was a light month for meetings and public service activities, there has been a lot going on below the surface in December (submitted by AEC Mike, VE3FFK)

The Prescott-Russell ARES group activities were very slow in December. There were the usual get-together on Thursday evenings at Chamberland Centre in Rockland, Ontario. The main topics were the situation with the VA3PRA repeater in Alfred, which is presently down for repair and upgrade.

There is a search on and a great need for a permanent replacement EC for the PR-ARES group as Henry, VA3OV, has moved out of the region. DEC Lance, VA3LP, is temporarily performing the EC duties.

The PR-ARES group supports very much and encourages the new Prescott-Russell ARC and wish to indicate here that all Radio Amateurs in the United Counties of Prescott and Russell are very welcome to join this new, active and growing club.

In the coming months it is expected that an important discussion throughout the Eastern Ontario ARES District will be a further integration of the individual group packet systems to better serve our clients in the various regions of the District.

73, Michael Hickey, VE3IPC

MARITIMES:

SM: Craig Seaboyer, VE1DSS

I would like to take this opportunity to introduce myself as the newest Section Manager for the Maritimes.

I am a newly certified Amateur Radio operator (only two years) but I have been involved with the Electronics and RF fields for the past 25 years.

I have experienced a wide variety of Amateur Radio in the short time that I have held my certificate including several of the local Amateur fleamarkets, Field Days, contests and nets, and I have been actively involved with several exercises with the local Emergency Management Office.

I am currently the Communications Officer for the Antigonish Regional Emergency Management Organization and the President of Local 88 of the Nova Scotia Government and General Employees Union.

Now I would like to talk about what these experiences can do for RAC. I hope to be proactive in my area, contacting as many clubs and individual operators as I can to invite them to help shape our future at RAC.

To quote a union activist in my area: "a union is run by those who show up". I feel that this is true for most volunteer organizations. The more involved the clubs are, the more input they can have shaping our future at RAC.

From updating our literature, collaborating on projects and increasing our ARES presence within the Maritimes.

I believe it is an exciting time to be involved with Amateur Radio!

COMING EVENTS

THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative.

BURNABY ARC FLEAMARKET

Sponsored by the Burnaby ARC
Date: Sunday, March 17.
Time: Vendors 9 am; Public 10 am to 1:30 pm.
Place: Surrey, British Columbia; Sullivan Community Centre, 6306-152nd Street.
Description: Door prizes, raffle prizes, commercial exhibits, QSL Bureau, 50/50 Draw, food and refreshments. A wide selection of Amateur Radio and electronic equipment bargains. Free parking at the Sullivan Community Centre.
Cost: $5 per person; Vendors: $20 per table (includes one admission).
Talkin: VE7RBY 145.35 – (tone 127.3 Hz).
Information: For table reservations and info contact Lou Beaubien, VE7CGE at <loucge@telus.net> or 604-291-1569.
Webpage: http://www.ve7bar.org

LAVAL HAMFEST 2013

Sponsored by “Club Radio Amateur Laval – Laurentides”
Date: Saturday, March 23.
Time: Doors open to the public at 9 am; Vendor setup at 7 am.
Place: Georges-Vanier High School
3995 Boul. Levesque Est (East)
Laval, QC H7E 2R3
GPS: N45 35.9 W073 39.2
Description: As well as the Hamfest, we will have examiner(s) onsite for any Amateur licence exams plus there will be beverages and snacks available and many Door Prizes. So come one or come all.
Cost: Public $6; Tables: $10 each.
Talkin: 147.315 + (no tone).
Information: 514-708-8033 or by email to <hamfest@ve2crl.qc.ca>.
Webpage: www.ve2crl.qc.ca

HAMFEST DE LAVAL 2013

Parrainé par le Club Radio Amateur Laval – Laurentides
Date: Samedi le 23 Mars.
Heure: Les portes ouvrent au public à 9hres, accès des vendeurs à 7hres.
Endroit: École polyvalante Georges-Vanier
3995 Boul. Lévesque Est.
Laval, QC H7E 2R3
GPS: N45 35.9 W073 39.2.
Description: En plus du Hamfest avec beaucoup de prix de presence, nous avons des examinateurs present. Pour tout examen amateur et nous avons des rafraîchissements et friandises sur place. Alors venez en grand nombre.
Coût: Entrée du public: $6;
Tables:$10 chacune.
Radio-guidage: 147.315+ (pas de tone).
Information: 514-708-8033 ou par email <hamfest@ve2crl.qc.ca>
Siteweb: www.ve2crl.qc.ca

HAM-EX 2013

Sponsored by the Peel & Mississauga ARC
Date: Saturday, March 23.
Time: Vendors 7 am for vendors; 8 am for Exhibit hall; 9 am for the fleamarket.
Place: Brampton, Ontario. Exit Highway 401 at Mayfield Road and turn left on Mayfield Road. Turn right onto Heart Lake Road north and follow the signs.
Description: Free parking. Lots of vendors and interesting exhibits and demonstrations. DXCC, WAS & VUCC card checking. Licensing Examinations. $1000 Grand Prize voucher from Radioworld.
Cost: Public $7, vendors tables, 8-ft $35, 6ft $30 with one free admission per table, $7 for each additional admission.
Talkin: VE3PRC 146.880- (no tone)
VE3MIS 145.430- (103.5 Hz tone required)
Webpage: www.ham-ex.ca

17TH ANNUAL IROQUOIS FLEAMARKET

Sponsored by the Iroquois ARC
Date: Saturday April 6.
Time: Vendors 8 am; Public 9 am.
Place: Iroquois, Ontario; Iroquois Civic Centre 1 Dundas Street. Take exit 738 on Highway 401.
Cost: Admission is free; table rental $10.
Talkin: VE3IRO 145.29 (-)
Information: For table rental contact Mike, VA3TUF, at <va3tufham@aol.com> or Don, VA3NC, at <va3nc@rac.ca>.

WINNIPEG ARC SPRING FLEAMARKET

Sponsored by Winnipeg ARC
Date: Sunday, April 14.
Time: Coffee, muffins and eyeball QSOs 9:30 am; Vendors 9:45 am; Public 10:30 am; Prize Draws: 11:30 am.
Place: Heritage Victoria Community Club, 950 Sturgeon Road, Winnipeg
Description: Fleamarket and social event.
Cost: $3 per person; Tables: $5 each for WARC members, all others $10 each.
Information: Dick Maguire, VE4HK, ve4hk@rac.ca or 204-256-3143; for tables contact Ruth, VE4XYL, ve4se@mts.net or 204-837-6915.
Talkin: 147.390 MHz positive offset, 127.3 tone.

DURHAM REGION AMATEUR RADIO HAMFEST

Sponsored by the South Pickering ARC & North Shore ARC
Date: Saturday, April 20.
Time: Vendors 7:30 am; Public 9 am to 1 pm. Some vendors leave before 1 pm so be sure to get there as early as you can!
Place: Pickering, Ontario at the Pickering Recreation Complex, 1867 Valley Farm Road.
Description: Now on it’s 37th year. This is the only Hamfest in the Durham region!
Cost: Public $6; Tables $25 in centre of room (includes one person). Wall tables $50 (includes one person). Hydro may be available at some tables and *must* be requested on the Table Registration form (an extra charge will apply for Hydro). New this year: Extra charges will also apply for late registration.
Talkin: VE3SPA 147.375 (+offset), no CTCSS tone required.
Information: For non-registration questions contact Walter Cang, Hamfest Chairman at <canadianamateur@gmail.com>. The Registration Brochure is available for download from the Hamfest website. Mailing Address: Durham Region Amateur Radio Hamfest, PO Box 53, Pickering, Ontario, L1V 2R2. For Tables: Download the Registration Brochure from the website and mail to the PO Box listed (address info is also on the form). If you have registration questions, you can email Peter Henry, Registration Coordinator (va3pwh@rac.ca) or you can call him at 905-436-9236. Please call only between 10 am and 9 pm EDT.
Webpage: http://drhamfest.tripod.com

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NEW ENGLAND AMATEUR RADIO FESTIVAL (NEAR-Fest XIII)

Sponsored by the New England Amateur Radio Festival, Inc.
Date: Friday, May 3 to Saturday, May 4.
Time: Gates open at 9 am Friday for sellers and buyers.
Place: Deerfield, NH, USA; the Deerfield Fairgrounds is located on Route 43 approximately 15 miles NE of Manchester NH. GPS coordinates: N42d 5m 57.4" W71d 14m 33.5s.
Description: In addition to the hundreds of hams "tailgating" in the fleamarket there will be three huge buildings full of commercial vendors and dealers offering everything from the latest in radio equipment, books, accessories and who knows what else?
Cost: $10 per person and $10 per vehicle into the fleamarket. Camping fees to be announced.
Talkin: K1JEK/RPT 146.700 MHz (-600 PL 88.5) 146.52 direct 3.885 MHz; Tune your car radio to FM 95.1 or AM 650 for continuous hamfest news and entertainment.
Information: <W1RC@near-fest.com>
Webpage: www.near-fest.com/

MAPLE RIDGE SWAP MEET

Sponsored by the Maple Ridge ARC
Date: Sunday, May 5.
Time: Vendors 7:30 am; Public at 9 am; Open for pancake breakfast 8 am.
Place: Pitt Meadows, British Columbia; 12460 Harris Road one Block South of the Lougheed Highway In the old REC Building.
Description: Ham Radio & Computer Swapmeet. The largest in the Fraser Valley. Great prices lots of stuff.
Cost: Tables $20 Includes one entry and a chance to win a radio; Public $4 includes a chance to win a radio.
Talkin: 146.800 -600 + Tone 156.7
Information: Contact Nick 604-465-9476 or <ve7te@mrarc.net>.
Webpage: http://www.mrarc.net

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- Trylon T-200 48-ft Tower $1,722
- Rotor & bearing plates @ $57 – $114
- Rohn HD TB-3 thrust bearing $119
- Yaesu G-800SA rotor & cable $519
- Cushcraft A4S Triband beam $929
- 100 feet RG-213 coax cable $95

Total $3,498 – #2 Package deal $2,995

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Email: macfltd@kos.net
<www.macfarlaneelectronics.on.ca>

RIDEAU LAKES ARC 29TH SMITHS FALLS FLEAMARKET

Sponsored by the Rideau Lakes ARC
Date: Saturday, May 11.
Time: Vendors: 7 am; Public: 9 am.
Place: Smiths Falls, Ontario; Smiths Falls Curling and Squash Club (same location as last year), Old Sly's Road. Check our website for a site map.
Description: Our 29th Annual Fleamarket of Amateur Radio equipment includes:
a large number of Commercial & Private Vendors; a Canteen; and a Consignment Table.
Cost: General Admission; $5 (includes a door prize ticket); Youth under 16 admitted Free of Charge; Vendors: Tables (Approximately 2 1/2 X 5 ft) $10 (includes one admission.
Talkin: VE3RLR on 147.21 MHz+.
Information: For more information or reservations, contact the RLARC at <ve3rlr@yahoo.ca> or visit our website.
Webpage: http://ve3rlr.dyndns.org

CENTRAL ONTARIO HAMFEST & FLEAMARKET

Sponsored by the Guelph ARC & Kitchener-Waterloo ARC
Date: Sunday, June 2.
Time: Vendors 7 am; Public 9 am.
Place: Cambridge, Ontario; Waterloo Regional Police Association Recreation Centre; RR 2, 1128 Rife Rd. North Dumfries Township beside Hwy 401, between exits 268 & 275; Location: 43.344939, -80.418376. Watch for the signs.
Description: 39 years and still going strong- bringing together Amateur Radio operators, hobbyists and enthusiasts just before Field Day and the summer heat. Indoor tables and tailgating; major vendors, loads of collectibles; free prize draws, tasty refreshments. Easy parking.
Cost: General Admission $7 (under 12 free).
Talkin: VE3KSR 146.970 (-) tone 131.8 and 146.520 when you're nearby
Information: Contact: info@hamfest.on.ca
Webpage: www.hamfest.on.ca

CENTRAL ALBERTA ARC 43RD ANNUAL PICNIC AND HAMFEST

Date: Friday, June 14 to Sunday, June 16.
Time: The event starts on Friday at 9 am and ends at 8 pm on Father's Day Sunday.
Place: Red Deer, Alberta; Shady Nook Hall, 52°13'53.79"N 113°56'48.58"W.
Information: Visit our website or contact Geoffrey Norris, VE6TAC, at 403-346-3077 or by email at <ve6tac@rac.ca>.
Webpage: www.caarc.ca

ONTARIO HAMFEST

Sponsored by the Burlington ARC
Date: Saturday, July 13.
Place: Milton, Ontario
Time: Robert St Gate – Inside & Commercial Vendors 7 am and Tailgate Vendors 8 am; Public: Thomas St Gate *only* 9 am.
Cost: Public: $7; Tables: $14 each; Tailgate Permit: $7 per space.
Talkin: 146.520 –.
Information: Co-Event Coordinators: Chuck Wilson, VE3IUO; Herb Teather, VA3HRB; Email: barc.ontariohamfest@gmail.com. Mail Vendor reservations to:
Norm Freidin, VE3CZI, 2129 Larabee Court, Burlington, ON L7P 3S3, 905-335-8962 <barc.ontariohamfest@gmail.com> or <ve3czi@arrl.net>.
Webpage: www.barc.ca/Ontario%20Hamfest.htm

OTTAWA (CARP) 17TH ANNUAL HAMFEST

Sponsored by the Ottawa ARC
Date: Saturday, September 7.
Place: Ottawa (Carp), Ontario; at the Carp Agricultural Fairgrounds (W. Erskine Johnson Arena); 3832 Carp Road (near Falldown Lane).
Time: Building Vendor Setup: 7:30 am to 9 am; Tailgaters Open: 8 am; Indoor Fleamarket Open: 9 am to Noon.
Cost: $6 General Admission, $12/table (plus admission), $5/tailgate (plus admission).
Talkin: VE2CRA, 146.94–, 100 Hz.
Description: The region's largest fleamarket and hamfest. Major door prize draws! We also have onsite Amateur Radio licence exams! Get your licence or upgrade during the hamfest!
Information: Ed Sich, VE3WGO, 613-667-2752; or contact <fleamarket at oarc.net>.
Webpage: www.oarc.net/fleamarket

KARC HAMFEST 2013

Sponsored by the Kingston ARC and the Military Communications & Electronics Museum
Date: Saturday, September 14.
Place: Kingston, Ontario; Military Communications & Electronics Museum at 95 Craftsman Blvd, Kingston, ON K7K 1A1.
Time: Vendors at 7:30 am; Public at 9 am.
Cost: Tables are $10 each; admission is a *donation* to the Museum.
Talkin: VE3KBR 146.940-, 151.4Hz tone.
Information: Douglas Richards, VE3FFR, Terry Barret, VA3KLG, Steve Cutway, VE3KC; contact: <hamfest@ve3kbr.com>
Webpage: www.ve3kbr.com

HARC HAMFEST 2013

Sponsored by the Hamilton ARC
Date: Saturday, October 5.
Time: Vendors 7 am; Public 9 am.
Place: Ancaster, Ontario; the Concession Building at the Ancaster Fairgrounds, 630 Trinity Road, Ancaster, L0R 1R0.
Description: An Amateur Radio, computer, and electronics fleamarket with parking and Snack Bar onsite: BBQ Back Bacon, Pulled Pork and Drinks.
Cost: General Admission: $7 per person.
Talkin: 146.76 (-) with tone 131.8 VE3NCF
Information: General info: John Boswell, VA3BOZ, <va3boz@hamiltonarc.ca> or at 905-227-0155. Vendor liaison: Mardy Eedson, VE3QEE <ve3qee@hamiltonarc.ca> or 905-648-0187.
Mail payment to: The Hamilton Amateur Radio Club, 117-350 King Street East, PO Box 75073, Hamilton, Ontario L8N 4G6. Tables are reserved upon receipt of payment on a first come basis. Please book in advance to avoid disappointment.
Webpage: http://www.hamiltonarc.ca/index.php?module=htmlpages&func=display&pid=38

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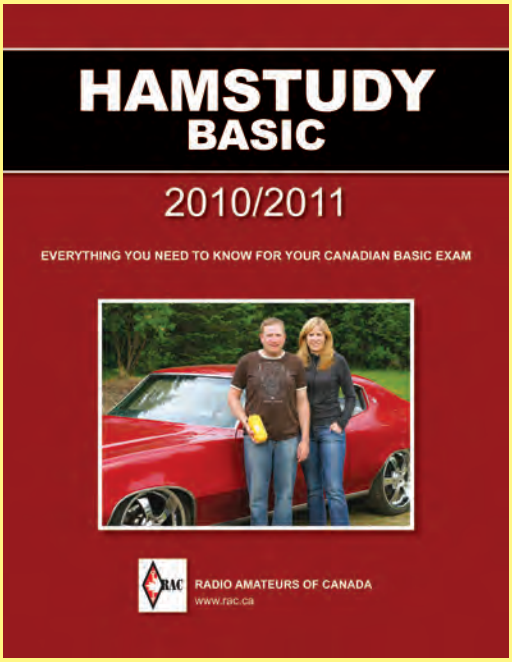
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- √ Morse Code is no longer mandatory to obtain your licence
- √ Most students require 20 to 35 hours of study to prepare for the exam

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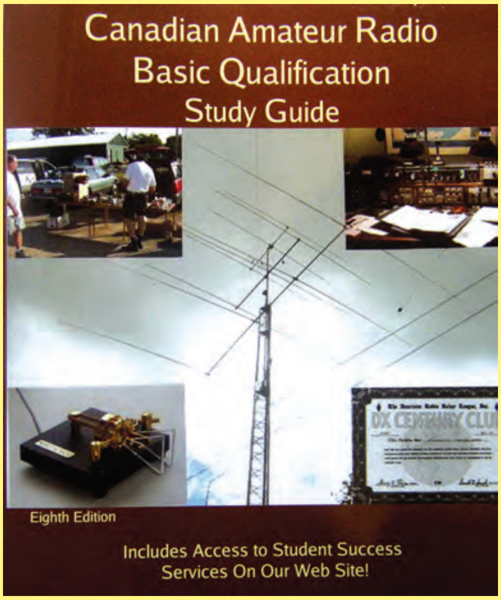
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The amazing Crystal Roofing Filter performance

The Down conversion 9 MHz 1st IF frequency receiver construction, can realize narrow 300 Hz (optional), 600 Hz and 3 kHz bandwidth roofing filters.

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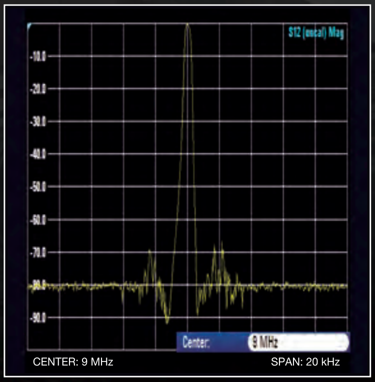
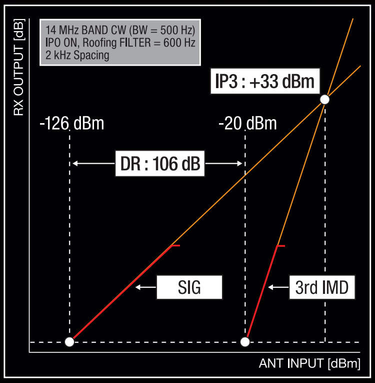


Characteristics of the Crystal Roofing Filter (300 Hz)



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The FTDX3000 has not been approved by the FCC. This product may not be sold or leased, or offered for sale or lease until FCC approval has been obtained.